

march-april 2023 // retrofitmagazine.com

retrofit



Grand Slam:

An IMAX Theater Now Is a State-of-the-art Broadcast and Production Facility for the Tennis Channel

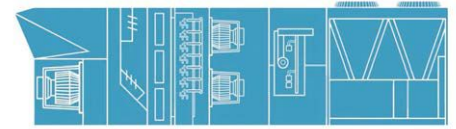
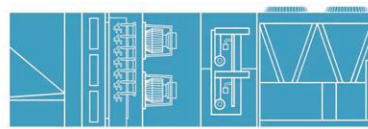
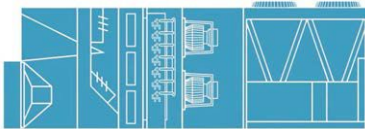
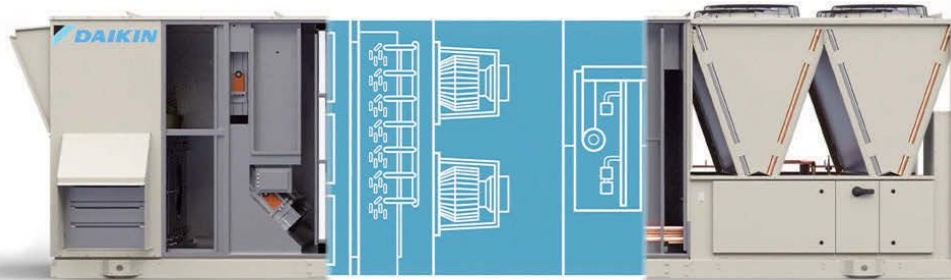
+ More Sports Projects



TREND ALERT:
cybersecurity



Unlimited Configurability for New & Retrofit Applications



Rebel Applied™

Rebel Applied is an all-encompassing packaged rooftop solution that rises above its class with industry-leading high-performance design, maximum energy efficiency, lowest lifecycle cost, and unlimited configurability. It features a modular, high-performance cabinet design that is unique to the market and delivers a reimagined product solution that enables engineers and contractors to design around their exact application.

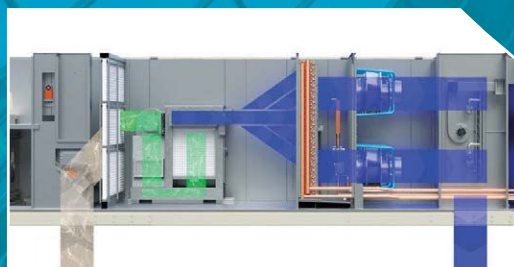
RETROFITS MADE EASY

Rebel Applied's highly customizable modular cabinet gives you the flexibility to design around the exact application. It eliminates the need for transition curbs for many existing units in the field and is an ideal solution for retrofit applications at up to 37% shorter and 30% lighter than legacy applied rooftops.



SORBENT VENTILATION TECHNOLOGY

When applied using ASHRAE 62.1's IAQ Procedure (IAQP), Sorbent Ventilation Technology (SVT) provides the clean air changes needed for healthy indoor spaces, allowing building operators to decrease the volume of outdoor air needed and the total cooling load of their buildings.



LEARN MORE AT [DAIKINAPPLIED.COM](https://www.daikinapplied.com)



So. Much. **Potential.**

So. Much. **We can help you with.**

As a manufacturer, we believe our support should go much further than selling product off the shelf — and it does. Just ask the specifiers, consultants, designers, contractors and owners who have relied on our problem-solving support on thousands of retrofits and renovations since our beginning in 1939.



**RESTABILIZE
WALLS**



**CLEAN & PROTECT
MASONRY**



**REHAB
CONCRETE FLOORS**

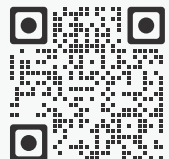


**AIRTIGHTEN
BUILDING ENVELOPES**



PROSOCO

You. Us. The project.



SCHEDULE A CONSULTATION

Building Distinction

Northern Arizona University Student-Athlete High Performance Center | Flagstaff, Arizona

KS Mini Micro-Rib

Pioneering Products that Elevate Design and Efficiency.

At Kingspan Insulated Panels, we're pioneering better technologies and methods of building for a low carbon world. Kingspan insulated metal panels are the next generation of building envelope, offering an unparalleled combination of aesthetic flexibility, energy efficiency and thermal, air, water and vapor barrier performance.

Build distinction that stands out.
www.kingspanpanels.us



Navien **leading** the way year after year

2012

Navien makes it
simple to go tankless
with NPE Series
condensing
water heaters

TODAY

The new NPE-2 series is now even simpler with more innovations and multiple installation options versus tanks and other's tankless units. Navien leads the way with the patented ComfortFlow® built-in buffer tank and recirc pump, dual stainless steel heat exchangers, up to 0.96 UEF and 15:1 TDR. Not to mention, simpler, faster installs with space-saving design, longer 2" PVC venting and 1/2" gas piping, field gas conversion and easy-to-use controls for set up and diagnostics.

To learn more about the best-selling condensing tankless water heaters, simply visit us at Navieninc.com.



2" PVC venting
up to 75 feet

Field gas conversion
from NG to LP or
high altitude



EZ Nav multi-line
control with
Setup Wizard
intuitive software

1/2" gas piping up to 24 feet
(Subject to local codes)

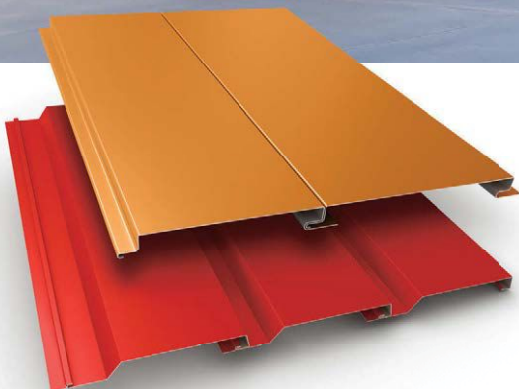


T H E L E A D E R I N C O N D E N S I N G T E C H N O L O G Y

Crisp Smooth Color

Photo: alanblakely.com

HIGHLINE S1 + FLUSH WALL PANELS



Explore the PAC-CLAD Color Palette

“The metal panels gave us a crisp, smooth surface and edge that offset and contrasted with the randomness of the stone. They also provided an opportunity for additional color in the façade.”

-Dwayne Mollard, AIA, principal, Collaborate Architects



< View Video + Case Study

LSC - East Aldine Center, Houston, TX

Contractor: PRC Roofing & Sheet Metal

Architects: IBI Group, Collaborate Architects

Profiles: Highline S1, Flush wall panels

Colors: Copper Penny, Cardinal Red

Visit us at IRE Booth 3112



PAC-CLAD.COM | 800 PAC CLAD



INSIDE THIS ISSUE

MARCH-APRIL 2023 // VOL 14 // ISSUE 2

feature projects

GAME, SET, MATCH

An IMAX theater is transformed into a state-of-the-art broadcast and production facility for the Tennis Channel and Bally Sports.



30

PERUSE SPORTS FACILITIES FROM ACROSS THE COUNTRY:

- Chicago White Sox Visitors' Clubhouse
- Weight Room, Cardinal Ritter College Preparatory High School, St. Louis
- Katie Seashole Pressly Softball Stadium, University of Florida, Gainesville
- Decking, Bleachers and Boardwalk, Wild Dunes Resort, Isle of Palms, S.C.
- VIP Restrooms, Gillette Stadium, Foxborough, Mass.



cover

COVER PHOTO: GENSLER/RYAN GARVIN

retrofit

INSIDE THIS ISSUE

MARCH-APRIL 2023 // VOL 14 // ISSUE 2



Business

16

GAMING DAY

College esports venues heighten competitive play and career advancement.

Component

36

FUNCTIONAL & BEAUTIFUL

There are several important considerations when designing today's public restrooms.



Historic

42

LOOKING AHEAD

Built for the 1962 World's Fair, Seattle's Climate Pledge Arena underwent a radical transformation with the future of live events in mind.



Transformation

50

IT'S FUN TO PLAY AT THE YMCA

A Teen Task Force helps create a youth hang-out spot within a former utility payment center.

Trend Alert

58

CYBER SAFE

Attacks on cloud and data infrastructure underline the need for cybersecurity.



COLUMN

12

POINT OF VIEW // The *retrofit* team has lost a friend and mentor in Scott Kriner.

DEPARTMENTS

61

PRODUCTS // View a roundup of the latest materials and systems for the industry.

66

INSPIRATION // The city of Dubuque, Iowa, renovated Veterans Memorial Plaza, which honors veterans by unifying and enhancing existing memorials.

retrofit

➔ stay up to date

Subscribe to *retrofit*'s weekly e-newsletter at www.retrofitmagazine.com. You'll receive the latest news, blogs and content you won't find in the magazine.



Photo: Clark Dugger Photography
Architect: Heitler Houstoun Architects

Next time, drop in a better ceiling.

Long-lasting, stain-resistant, durable, washable, and available in 40 three-dimensional patterns and 16 colors and finishes, you won't need to replace your ceiling for decades with Ceilume's thermoformed ceiling tiles and panels.



877-492-5605
ceilume.com/pro
pro@ceilume.com





TWIST. SNAP. DROP.



The Yorktowne Hotel, Tapestry Collection by Hilton, York, PA

HANOVER[®]
Architectural Products
www.hanoverpavers.com



retrofit

March-April 2023 // VOL 14 // ISSUE 2

PUBLISHER

JOHN RIESTER

john@retrofitmagazine.com

ASSOCIATE PUBLISHER/EDITORIAL DIRECTOR

CHRISTINA KOCH

christina@retrofitmagazine.com

DIRECTOR OF OPERATIONS

BECKY RIESTER

becky@retrofitmagazine.com

CONTRIBUTING EDITOR

JIM SCHNEIDER

ART DIRECTOR

VILIJA KRAJEWSKI

vilijak@comcast.net

CIRCULATION MANAGER

LYN URE

lyn@retrofitmagazine.com

DIGITAL DESIGN DIRECTOR

MARIE MADRON

WEB ENGINEER

DEREK LEEDS

SOCIAL MEDIA MAVEN

ROBIN GRABER

ADVERTISING SALES

JOHN RIESTER

john@retrofitmagazine.com

(919) 641-6321

BARRETT HAHN

barrett.hahn@gmail.com

(919) 593-5318

BETH EMERICH

beth@retrofitmagazine.com

(781) 710-4745

EDITORIAL ADVISORY BOARD

NATHAN M. GILLETTE

AIA, LEED AP, REALTOR
Director, Natura Architectural
Consulting LLC, Grand Rapids, Mich.

WILLIAM E. HOLLOWAY

AIA, LEED AP
Principal, BERNARDON,
Wilmington, Del.

JOHN J. NOONAN

Vice President of Facilities
Management
Duke University, Durham, N.C.

MICHAEL P. WASHBURN, Ph.D.

Principal, Washburn Consulting,
Scottsdale, Ariz.

RETROFIT // Vol. 14 // No. 2 is published bimonthly by Fisher Media LLC, 98 Booth Meadow Lane, Durham, NC 27713, (919) 641-6321. POSTMASTER: Send address changes to **retrofit**, 2409 High Point Drive, Lindenhurst, IL 60046.

TO SUBSCRIBE or make subscription changes, visit www.retrofitmagazine.com, and click on the "Subscribe" button, or email lyn@retrofitmagazine.com.

Belimo Energy Valve™ and Thermal Energy Meter



Energy Management and Billing Made Easy

The integration of Belimo's Thermal Energy Meter with the Energy Valve allows for easy energy control and transparent tenant billing. Designed to EN1434/MID standards ensures high accuracy and reliability, allowing for easy tenant billing. Belimo is stepping into a new era of integrated thermal energy management and bringing together what belongs together.



Discover the advantages
www.belimo.us



5-year warranty





THE LOSS OF A MENTOR

retrofit lost a good friend, Scott “Scooter” Kriner, in late January when he died after struggling with Alzheimer’s Disease. Scott was only 63.

Scott not only was a friend to many members of the **retrofit** team and I, but he also was one of my mentors. In fact, when I got the idea to start **retrofit**, I spoke to Scott about it because I valued his opinion. Scott’s career in metal construction provided invaluable insight into the retrofit roofing market; he also was very knowledgeable about green building and believed the most sustainable buildings are the ones already built. He immediately threw his support behind the idea of **retrofit** as a magazine, and I ran with the idea.

Scott was a big part of the Metal Construction Association (MCA), serving as its technical consultant for several years. Just before his death, Scott was awarded MCA’s prestigious Larry A. Swaney award, which is given to an outstanding industry professional for his or her contributions to the success of the association and the betterment of the metal construction industry. Scott helped develop MCA’s environmental product declarations and served as the founding chairman of the Cool Metal Roofing Coalition. I was honored to be part of the award presentation.

In addition to his business acumen, Scott was a good person. He was just plain fun to be around, always smiling and telling jokes. We shared so many laughs while traveling to trade shows and meetings throughout the years. Scott also was a great family man. He was an amazing husband to his wife of 36 years, LeeAnn; a kind advisor to his two sons, Matthew and Andrew; as well as a loving and patient grandfather to his three grandchildren. There are many people who miss Scott dearly.

Cheers Scott! The **retrofit** team and I love you!



JOHN RIESTER

Publisher, **retrofit**

➔ follow us



VIEW OUR DIGITAL EDITION FOR INTERACTIVE CONTENT!

Anywhere you see a video player icon, we’ve embedded a video in our digital edition of this issue. Visit www.retrofitmagazine.com and click on our digital edition in the top right corner. Then, flip to pages 64 and 68 to watch videos that will give you more insight about the stories, products and ads you see in this issue.

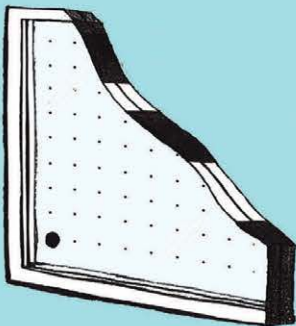
Pilkington **Spacia™** the vacuum insulating glass solution!

*Bring the buildings of the
past to the present with
Pilkington Spacia™*

*The World's First
Commercially available
vacuum insulating glazing!*



Archibald Place (left) was able to maintain its existing building appearance while upgrading its monolithic glass to modern IGU performance.



Pilkington Spacia™

There are many benefits to using a VIG. The thin profile, high-performance product allows for potential to:

- Reduce embodied carbon impacts from additional materials by allowing reuse of existing window sash
- Improve buildings operational carbon and energy use by upgrading from monolithic to IGU performance
- Mitigate outside noise by improving acoustic performance



Scan for more on
historical restoration
glass solutions

CONTRIBUTING WRITERS



With nearly 30 years' experience, **Chris Bockstael**, AIA, a partner at Svigals + Partners, has championed a wide array of project types, including innovative academic facilities, like the ones he shares in "Business", page 16. As colleges and universities are investing in esports programs and state-of-the-art facilities for student training, competitions and career development, Bockstael outlines how, as a retrofit opportunity, esports facilities have a number of common technical and design requirements.



Denise DeSisto began her career in the construction industry in 1989, working in various roles, including estimating and project management. Today, as vice president, project executive for Clune Construction she writes about how a 63,000-square-foot former IMAX theater in Santa Monica, Calif., was chosen as the site for a new broadcast and production facility for the Tennis Channel. The reimagining of the space, which can be read about in the "Cover Story", page 22, encountered many challenges, including permitting.



The restroom embodies the essence of what designers do on a daily basis—crafting functional spaces that also are beautiful. In "Component", page 36, **Rick Marencic**, IIDA NCIDQ, design principal and studio leader with JCJ Architecture, highlights the main considerations of today's public restrooms, including hygiene and safety components, resource conservation and minimal maintenance, as well as ensuring these spaces are inclusive for all individuals.



Climate Pledge Arena, formerly KeyArena, is the most significant private investment in Pacific Northwest sports and entertainment history. **Meredith Morton**, who writes about construction and design from her home office in Chicago, explains how Rockwell Group designed a comprehensive set of amenities inside the Seattle arena. The firm drew from its hotel and restaurant expertise and decades of experience designing for performances and live events. Read the story in "Historic", page 42.



Scott Salge, AIA, LEED AP, is a principal and architect at Noll & Tam Architects, a firm dedicated to "Uncommon Spaces for the Common Good". Salge was the project manager on the adaptive reuse of a decommissioned bill-payment center in Berkeley, Calif., into a thriving YMCA dedicated to teens—an example of how multidisciplinary collaboration can provide outstanding resources and experiences for the community. Read the story in "Transformation", page 50.



Breeze™ PANEL ©2022 modulararts, inc.



Angel™ PANELS ©2022 modulararts, inc.



Crusier™ PANEL ©2011 modulararts, inc. Photo by Steve Hall, Hall + Merritt Photography Designer: Eastlake Studio



Zephyr™ BLOCK ©2012 modulararts, inc. Photo: Sarah Gandy Design, Inc.



Dune™ PANEL ©2013 modulararts, inc. Photo credit: Jessica Delaney



Hive™ BLOCK ©2012 modulararts, inc. U.S. Patent 8,375,665 Photo by Emerico Walling

modulararts® InterlockingRock®
seamless, modular feature walls in glass reinforced gypsum

modulararts.com

206.788.4210

Made in the U.S.A.



INTRODUCING

MetaWrx®

SMART ARCHITECTURE / LOW PROFILE / FLOOR ISOLATION



METAWRX WORKS.

Meet the Industry-Leading, Low-Profile Isolator for Lightweight Build-up Applications

- Superior shock, vibration attenuation
- Specifically engineered for low-profile, lightweight composite buildups
- Broad material and temperature compatibility
- High load bearing
- Long lifespan despite extreme abuse and conditions
- Easy installation
- Maintains lifelong architectural properties and performance



**DISCOVER
METAWRX**

kineticsnoise.com



 A CATALYST ACOUSTICS GROUP COMPANY

 **KINETICS
Noise Control®**

GAMING DAY

College Esports Venues Heighten Competitive Play, Career Advancement

WRITTEN BY | CHRIS BOCKSTAEL, AIA

PHOTOS: HALKIN WASON PHOTOGRAPHY unless otherwise noted

With esports technology, education, gaming and competition on the rise—worldwide, the esports market is expected to soar from 2020's \$1.44 billion to \$5.48 billion by 2029—casual gamers aren't the only ones paying attention to the online activity. (Read more about the future of the esports market at www.fortunebusinessinsights.com/esports-market-106820.)

Colleges and universities are investing in esports programs and state-of-the-art facilities for student training, competitions and career development. These programs not only create excitement and support student recruitment, but they also provide opportunities for interdisciplinary study in athletics, business, health sciences, communications and behavioral studies. Additionally, they help prepare students for post-college careers in the esports industry.

As a retrofit opportunity, the facilities have a number of common technical and design requirements. In a co-authored chapter of the book *Esports Business Management* by David Hedlund, Gil Fried and Rick Smith (Human Kinetics, 2020), architects from Svigals + Partners laid out precepts for creating successful esports venues at higher-education facilities, integrating a range of factors: esports activities; facility systems; and the unique needs of players, fans and staff.

Some of these requirements include:

- Flexible, multipurpose spaces that can accommodate different types of esports events, from training to competitions.
- State-of-the-art technology and equipment, including high-end gaming PCs, displays and audio systems.
- Proper ventilation and cooling to ensure the comfort and safety of players and staff.
- Good acoustics to enhance the gaming experience for players and spectators.
- Adequate power and data infrastructure to support the technology and equipment used in esports.
- Accessibility for players and staff with disabilities.

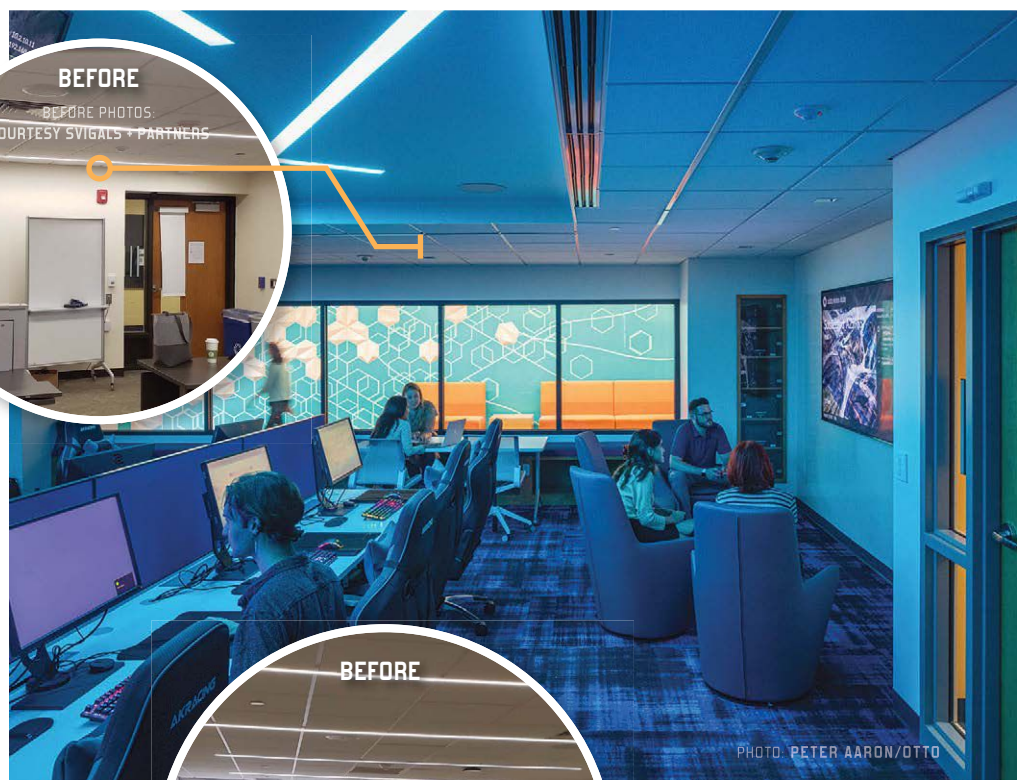


PHOTO: PETER AARON/OTTO



PHOTO: PETER AARON/OTTO

MANY ESPORTS CENTERS are retrofit projects within existing, ideally located campus buildings, like the University of New Haven's Bergami Center for Science, Technology & Innovation's esports facility, which has been named "The Stable". Prime among the architectural considerations for effective esports centers are a range of technical aspects, including capacity, adaptability and gameplay requirements.



CREATIVITY IS SUPPORTED through design expression. At Quinnipiac University's esports hub in Hamden, Conn., a dramatic, 3D ceiling finished in faux felt and designed with teal green faceted blades adds visual interest and provides essential acoustic performance, measured by noise reduction coefficient. The new ceiling also creates a more intimate atmosphere, obscuring the sloped ceiling plane and overhead mechanical systems.

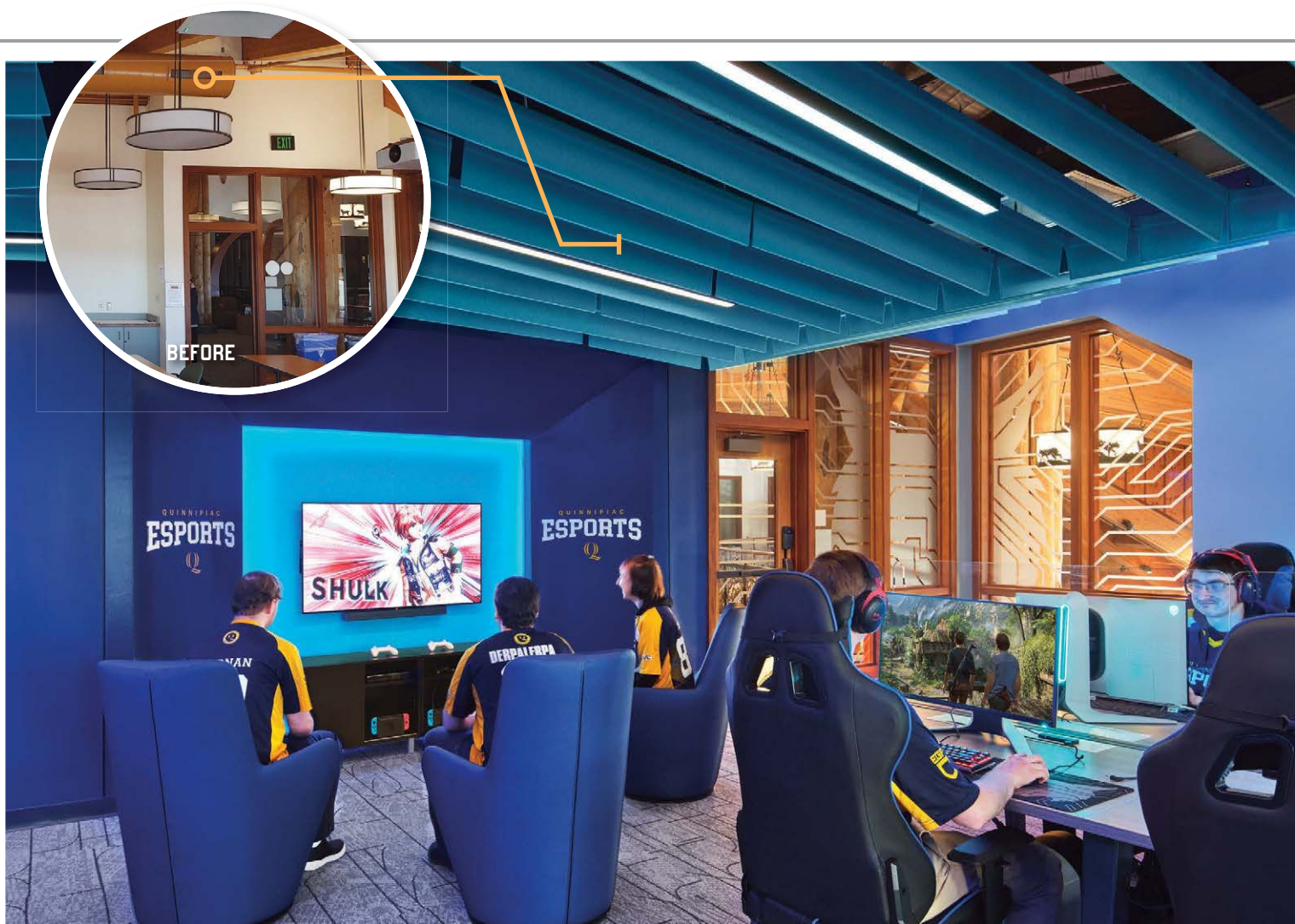
PLAYER AND INSTRUCTOR NEEDS

The successful design of esports venues and settings in higher-education facilities is largely dependent on understanding and considering the needs of the end-users. This includes considering the different requirements for academic programs, club-team gaming, and extramural and varsity team play. It is important to identify and define the typical users of esports rooms and hubs and to understand the anticipated class size to inform the design, furnishings, lighting and equipment choices.

The types of games and technologies used also play a significant role in the design and configuration of the space. This includes determining the appropriate seating arrangements, furniture selections, and effective materials and finishes. The game types and academic program requirements also determine the integration and layout of equipment and systems.

The settings for esports are often planned within larger academic departments or facility programs. In addition to collaborative classrooms, huddle spaces, a teaching auditorium, live broadcast studio, and makerspace at the University of New Haven's Bergami Center for Science, Technology & Innovation, the award-winning new complex also includes an esports arena designed for varied needs related to esports management curriculum, student and faculty training, and varsity-level competitions.

Bergami Center's esports facility, named "The Stable", provides students with the space, equipment and technologies required to compete at high-level competitions; gain technical experience; and advance careers in esports management, business technology, game development and broadcasting. The University of New Haven's esports program has grown to more than 200 club members, and its varsity team



competes in most major esports events.

For another higher-education institution, a new esports venue has been built at Quinnipiac University in Hamden, Conn. In this case, the project team, including Svigals + Partners, designed specific zones for separate competitive, club, training and academic uses. In the hub's main area, 24 gaming stations laid out in four rows of six seats allow for requisite five-person team gaming setups with the sixth seat for a substitute gamer. Nearby, a second zone offers a "digital den" to accommodate a four-person gaming console and a monitor for club members. To support teaching and coaching programs, the center also is equipped with mobile white boards, suspended wall monitors and a lectern.

These examples show how higher-education institutions are investing in esports centers that are designed to meet the specific needs of esports players, coaches

and students studying in the field. The centers are multipurpose and equipped with state-of-the-art technology and equipment to provide students with the resources they need to excel in competitive gaming and in their studies. The centers also provide a gathering space for students to form communities and make connections with other esports enthusiasts.

MATERIAL PALETTES FOR OPTIMAL FUNCTION

Along with designs that further the room's functions in gaming and learning, the layout of effective and engaging sports hubs at academic facilities must align with specific departmental goals and instructor teaching methods. For example, the faculty may prefer incorporating stationary or mobile writing surfaces. Other considerations are the inclusion of casual social and observation areas that are typically favored

by esports club members, along with architectural solutions that provide varsity teams with the necessary visual separation between rows of competing teams.

In the same way that conventional academic sports arenas are designed for athletic success and fan enjoyment, esports venues must optimize gaming and viewer participation plus player training.

For the University of New Haven's esports arena in the Bergami Center, the room's architectural elements support the strategic placement and height of multiple monitors to allow for proper ergonomics and user comfort throughout many hours of student play and study. Designed to the needs of a diverse group of bachelor's and master's degree candidates, the furnishings reflect the university population, including accessibility and universal-design considerations.

Creativity also is supported through

SCHWEISS

HYDRAULIC & BIFOLD DOORS

Manufacturing custom designed one-piece hydraulic doors and lift-strap bifold doors ... any application ... any size!



Schweiss Doors designed and built the glass bifold doors for the Golden 1 Center in Sacramento, CA

SCHWEISSDOORS.COM

EARLY WARNING WATER LEAK DETECTION

Installed in over 23,000 sites!

CEILING GUARD®



WATER ALERT®

**WATER ALERT
SENSOR CABLE**



- 5 Year Warranty
- Made in the USA
- In Business 40 Years
- Ultra High Quality

DORLEN Products Inc.
1-800-533-6392
WWW.WATERALERT.COM

design expression. At Quinnipiac University's hub, a dramatic, 3D ceiling finished in faux felt and designed with teal green faceted blades adds visual interest and provides essential acoustic performance, measured by noise reduction coefficient, or NRC. The new ceiling also creates a more intimate atmosphere, obscuring the sloped ceiling plane and overhead mechanical systems. The esports facility's blue and gray walls complement the carpet's color scheme and patterning, meant to suggest electronic circuitry. Adding to the chamber's digital vibe and end-use flexibility are dimmable linear LED pendants and wall-mounted fixtures that provide a soft glow, enhancing monitor viewing and the gaming experience.


The interior design instills a high-tech aesthetic that aligns with esports gaming and competitive play, as well as the university's other academic settings. An important point seen in this case study is that standard academic furniture typically can't provide adequate comfort for esports participants. For this reason, it's critical to review the selected furniture's ergonomic properties to consider their health and wellness benefits for the long hours some players spend sitting during competitions. Optimal specifications will mitigate physical discomfort and act as an ally for student success.

ADAPTABLE TECHNICAL SYSTEMS

Prime among the architectural considerations for effective esports centers are a range of technical aspects, including capacity, adaptability and gameplay requirements. Many of the new esports centers are retrofit projects within existing, ideally located campus buildings, which can present a range of renovation challenges. Evaluating how much time and budget is required for these aspects at the project onset helps determine the best way to move forward.

To that end, project teams establish early communications with key collaborators, including the organization's IT team, as well as telecom and MEP consultants, to ensure the room's proper infrastructures for anticipated console configurations, data portals and power needs. As technology rapidly evolves and teams change along with their needs, designs that allow for the ability to make technical and equipment upgrades are critical. Also important is architecture that supports gaming stations and peripheral products related to esports technologies. Key product types include game-play monitors for instructor and coach viewing, mounted speakers, audiovisual equipment for broadcasting, as well as mounted security and broadcast cameras.

With the acceleration of video-game technology and widespread interest in esports careers and competitive team play, the design of today's esports venues at academic facilities needs to accommodate teaching, training and varsity-level competition. Creating inviting, technically driven, esports environments that ensure cutting-edge support for gaming competitions through effective architectural solutions offer incoming and enrolled students an inspired place to acquire the skills and competitive edge they need throughout their academic journey and ensuing careers.

Although our grandparents never imagined a career in esports (or our parents for that matter), the responsibility of higher education is to prepare our children for a future we can't even imagine. It's possible the development of university esports facilities falls squarely in that camp. 



LUCENT SERIES | ENAMELED GLASS PARTITIONS

DESIGNED TO AMAZE.

The elegant design of Bradley's exclusive new collection of Euro style partitions flawlessly combines beauty and performance raising the standard in commercial washrooms. These three new models utilize high-design features, increased privacy, and seamless construction to provide an elevated look and welcoming spaces.

Commercial Washrooms. Brought to Life.

bradleycorp.com/euro-style-partitions



|COVER STORY|

GAME, SET, MATCH



PHOTOS: GENSLE/RYAN GARVIN unless otherwise noted



WRITTEN BY | DENISE DeSISTO

AN IMAX THEATER IS TRANSFORMED INTO A STATE-OF-THE-ART BROADCAST AND PRODUCTION FACILITY FOR THE TENNIS CHANNEL, BALLY SPORTS

The Tennis Channel is the only multiplatform, 24/7 destination dedicated to the professional sport of tennis and the tennis lifestyle. The network, which launched in Culver City, Calif., in 2001, had outgrown its studio and representatives wanted to bring production and corporate offices together in the same location. In 2018, network leaders made the bold decision to create a new headquarters in Santa Monica, Calif. This new space would incorporate Bally Sports West and Bally Sports SoCal facilities and cater to its champion staff and outstanding broadcasting capabilities.

Network leaders selected a 63,000-square-foot former IMAX theater as the site to carry out their vision. After the theater closed, the building was decommissioned by a streaming workout service that had partially built-out the space but then never utilized it. The space was unoccupied for a period of time before the Tennis Channel moved in.

Leadership envisioned a headquarters that would showcase the Tennis Channel's work, the sport of tennis and inspire creative minds to develop great productions. The former IMAX theater was the ideal space

- WHILE TRADITIONAL BROADCAST FACILITIES
- FOCUS ON DIMLY LIT TECHNICAL SPACES, THE
- TENNIS CHANNEL CREATED A LIGHT-FILLED SPACE.





for this. The size of the building suited the Tennis Channel's needs for an open office and the existing open areas accommodated the construction of the studios. The space was left in nearly perfect condition from the previous tenants, so the project teams were able to get started immediately.

Completed in April 2021, the Tennis Channel's new headquarters includes open office workspaces, private offices, collaboration areas, upgraded conference rooms, an employee pantry and dining area. Three new film and broadcast studios, green rooms and editing suites also were constructed. The facility's control room, the nerve center for the broadcasting station, features dozens of monitors, editing stations and AV systems.

FACING CHALLENGES HEAD ON

From the beginning, the team ran into challenges, starting with the permitting process. General Contractor Clune Construction was brought on early in the project because of its team's familiarity with Santa Monica's stringent permitting guidelines and the permit expeditor.

After the team acquired the initial building permit, the client made significant changes to the design, so the process started over again. Clune Construction had the ability to advise the design team and the client about what to include based on municipality allowances. As a result, construction was able to continue in one part of the building while the other awaited a new permit.

EXISTING CLERESTORY WINDOWS remain uncovered, and living, green walls were installed to bring the outdoors inside for a breath of fresh air.



RETROFIT TEAM

GENERAL CONTRACTOR // Clune Construction, www.clunegc.com

ARCHITECT // Gensler, www.gensler.com

CONSTRUCTION MANAGER // Jones Lang LaSalle, www.us.jll.com

MILLWORK // AM Cabinets, amcabinets.com

STRUCTURAL STEEL // Washington Iron Works, www.washingtonironworks.com

HVAC // Control Air, controlac.com

ELECTRICAL // O'Bryant Electric, www.obryantelectric.com

To stay on track, the team pre-purchased some of the critical equipment, including the large generator that would power the production facility. Because of permitting delays, the generator spent months sitting in a warehouse. The Tennis Channel had a set date to begin broadcasting from the new studios, so the team had installed a temporary generator, which required entirely separate permitting. It was a challenge to find the correct-sized temporary generator because California's wildfire season was in full swing and utility entities were renting out their generators for that purpose. After managing to acquire the temporary generator, Clune Construction quickly obtained yet another permit for installation. The channel was able to go live on time.

SERVING INNOVATION

One of the most innovative features of this project is the facility's central equipment room, or server room. Situated between two of the studios, the server room includes 29 racks. This amount of AV/server equipment could easily overheat and cause noise disruptions to the studios. To remedy this, the team installed a cold aisle in between the rows of

racks to create a path of air circulation that would take in cold air and pull it down to the racks while pushing the hot air out. These cold racks run 24/7 to protect the facility from overheating.

The sensitive nature of the technical equipment in the production control room, server rooms and studios required the installation of multiple rooftop units to ensure the broadcast and editing equipment would not overheat. This included a large air-handling unit that outputs 75 tons of air. The building was divided into a lower and upper portion. The air-handling unit was designed to sit on the lower portion, which at the time only consisted of insulation and metal decking. The team installed structural grid beams that were welded together prior to installation to support the weight and prevent roof collapse. The air handler was then installed on top of the beams.

With the headquarters located near the ocean, the roof also required pressure-treated lumber to maintain its quality because of the salinity in the air. The team ensured the materials were high-quality and constructed perfectly to withstand years of exposure to the elements.

.....

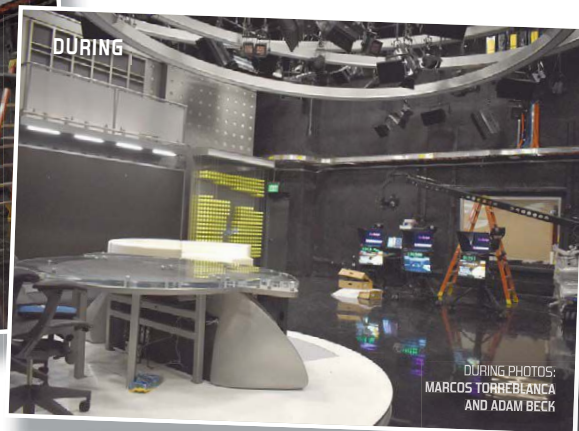
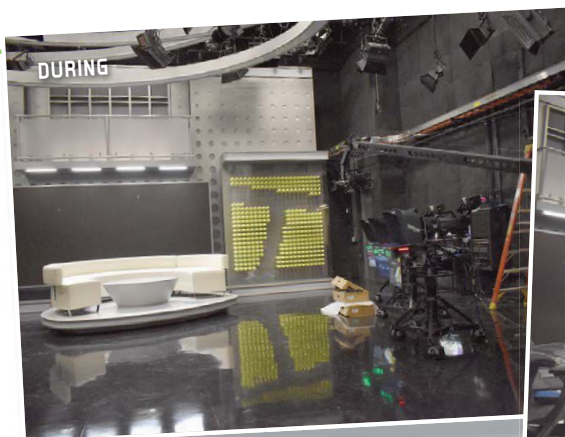
THE FACILITY'S CONTROL ROOM, the nerve center for the broadcasting station, features dozens of monitors, editing stations and AV systems. Consequently, a major innovation of the project was mitigating overheating of the server room by installing a cold aisle in between the rows of racks.

01

PCR



BEFORE BALLY SPORTS/the Tennis Channel acquired the former theater, a streaming workout service had partially built-out the space but never utilized it. The space was unoccupied for a period of time but was left in nearly perfect condition so the project team was able to get started immediately.



SMASHING TRADITION WHILE MAKING A MATCH

While traditional broadcast facilities focus on dimly lit technical spaces, the Tennis Channel created a light-filled space. Existing clerestory windows remained uncovered, and living, green walls were installed to bring the outdoors inside for a breath of fresh air.

Production and editing rooms are combined with social spaces for impromptu

meetings while the café opens onto an external garden that acts as an escape from working long hours in dark studios. Everything, down to the exposed conduit, was designed to be aesthetically pleasing so the space was as much for Tennis Channel employees as it was for broadcasting.

This project served an atypical combination of multiple clients: the Tennis Channel and Bally Sports and their parent, Sinclair Television Group. There were nu-

merous ideas on how to rebuild this space to showcase the new brand. The project not only accommodated a larger number of people in the workplace but also aimed to include more studio and editing space. The adage “form follows function” greatly reflects the architectural goals for this project. The design and construction teams of Gensler and Clune Construction provided innovative solutions that delivered on everyone’s wants and needs.

ZIPWALL®

DUST BARRIER SYSTEM

800-718-2255

Start every job with ZipWall®.


- Install in just a few minutes
- Up to 20' high
- No ladders, no tape, no damage

See how easy it is at **zipwall.com.**



IMMERSIVE STUDIO ENVIRONMENT

When looking at the completed space, it's clear to see how the design was inspired by the sport of tennis and the Tennis Channel's values. The broadcasting desk's shape is modeled after a tennis racket's arc while the background elements resemble the strings. The entire space has 18-foot ceilings throughout to accommodate a large-scale photo display that represents significant moments in tennis history. The Tennis Channel employees embrace the dynamic new space and feel comfortable in their new environment.

Taking advantage of Santa Monica's indoor/outdoor climate, the design team included biophilic elements throughout to create a sensory experience. Peppered with open space amenities and a light-filled atrium, the finished headquarters embraces the essence of Southern California living and the outdoor nature of the sport. 

MATERIALS

FLOORING // Tandus, commercial.tarkett.com/en_US/brand/tandus-centiva

AREA RUGS // Interface, www.interface.com

UPHOLSTERY // Carnegie, carnegiefabrics.com, and Momentum, www.momentumtextilesandwalls.com

WINDOW FILM // Metropolitan West, metwest.com

DECORATIVE GLASS // Glaspro, glas-pro.com

WINDOW TREATMENT // Mermet, mermetusa.com

PAINT // Dunn-Edwards, www.dunnedwards.com

PLASTIC LAMINATE // Wilsonart, www.wilsonart.com

SOLID SURFACE // Corian Design, www.na.corian.com

CORK BOARD // Sustainable Materials, www.sustainablematerials.com

WALL TILE // Daltile, www.daltile.com; SpecCeramics, specceramics.com; Art of the Board, www.aobcontract.com; and EuroWest, www.eurowest.com

FABRIC-WRAPPED PANELS // Maharam, www.maharam.com

ACOUSTIC DRAPES // Carnegie, carnegiefabrics.com

ACOUSTIC CEILING // Armstrong Ceiling & Wall Solutions, www.armstrongceilings.com

OPERABLE WALLS // Modernfold, www.modernfold.com

DEMOUNTABLE PARTITIONS // Muraflex, muraflex.com

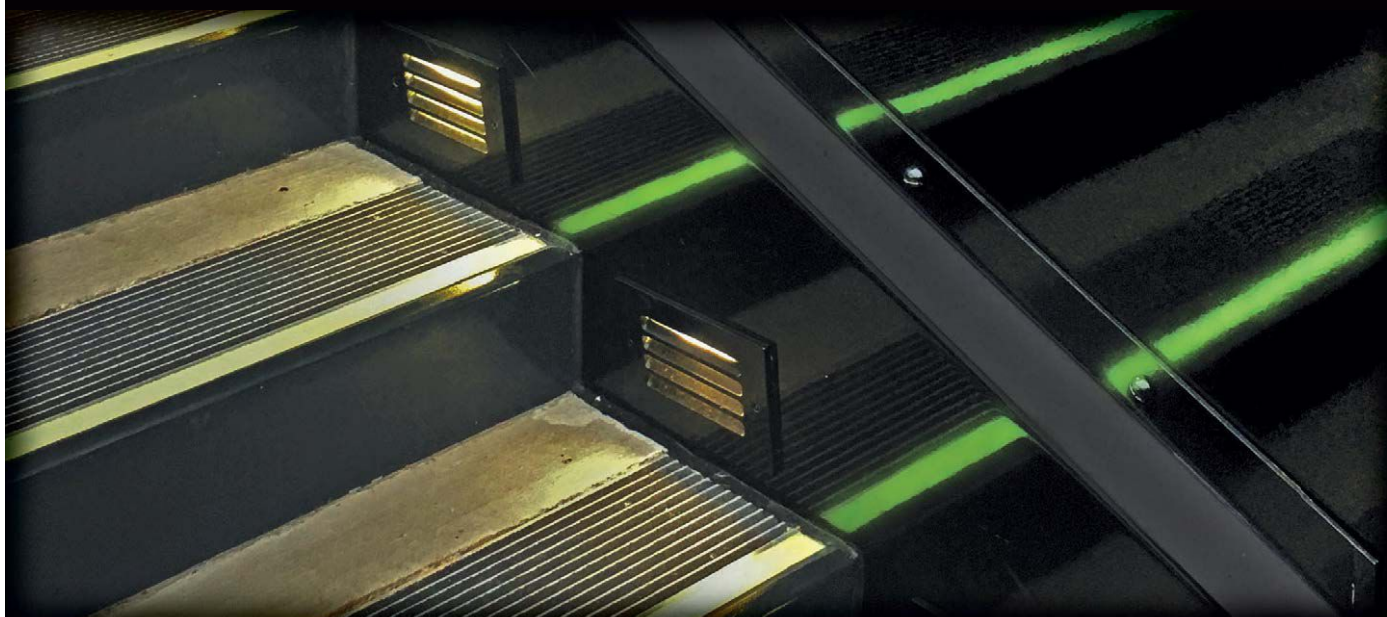
TOILET ACCESSORIES // Bobrick, www.bobrick.com

ROOFTOP UNITS // Trane, www.trane.com/commercial/north-america/us/en.html

COLD RACKS // Liebert from Vertiv, www.vertiv.com/en-us/products/brands/liebert

NITEGLOW® ANTI-SLIP STAIR TREADS

#1 IN EGRESS SAFETY WITH THE LIGHTS ON AND OFF



Wooster Products Inc.
"Make Every Step a Safe One"

**PHOTOLUMINESCENT ANTI-SLIP
SAFETY TREADS & NOSINGS**
IBC, IFC & NYC CODE COMPLIANT!

Call or visit us at:
1-800-321-4936
www.woosterproducts.com
sales@wooster-products.com



CHICAGO WHITE SOX VISITORS' CLUBHOUSE



PHOTOS: REHAU



30 RETROFIT // March-April 2023





» RETROFIT TEAM

ARCHITECT: Eastlake Studio, eastlakestudio.com
 CABINET MANUFACTURER: Systems Unlimited Inc.,
 (630) 285-0010
 DISTRIBUTOR: Amerhart, www.amerhart.com

» MATERIALS

Built in 1994, the Chicago White Sox visitors' clubhouse was due for an update. Working within Major League Baseball (MLB) guidelines and directed by the Illinois Sports Facility Authority, Eastlake Studio updated and expanded the 4,000-square-foot clubhouse with a new kitchen, lounge, video-replay technology and an enlarged MLB equipment room.

"This was an extensive remodel because we didn't just use the layout of the existing space but completely demolished and rebuilt," says Eastlake Studio Designer Amber Van Kley. "We reorganized the space to let it flow and function."

With the season rapidly approaching, the Chicago White Sox needed to be quick, efficient and cost-effective with the clubhouse update. According to Van Kley, "Cost was always a factor. We needed to have good-looking and durable, high-quality products, but we also needed to be economical."

Because of the strict lead-time and financial parameters, Van Kley recounts the team tried to salvage the lockers and other materials. The decision to rebuild was an unexpected change during the construction process. After much debate, Van Kley explains: "We just decided to use REHAU for everything—the lockers and other surfaces throughout the clubhouse. The project wasn't originally supposed to be REHAU, but it added a lot of value to the design."

Finding the perfect surface wasn't easy. Van Kley recalls many options were presented until the executives decided to go with a wood look, using deeply textured RAUVISIO terra Mountain Oak. "The graining and texture of the RAUVISIO terra product is beautiful and looks like real wood," Van Kley notes. "We convinced them that no one would know it wasn't veneer." The RAUVISIO terra Mountain Oak color also satisfied the team's desire for a neutral design palette that coordinates with White Sox colors without over-branding.

The RAUVISIO terra surface was used to construct the lockers, wall panels in the shower area and video room, and for the cabinetry in the kitchen and shower area. Systems Unlimited fabricated and installed the components. The project used 195 laminate sheets, 51 by 120 by 0.035 inches, and matching adhesive-free REHAU LaserEdge, which was applied using a hot-air edgebander.

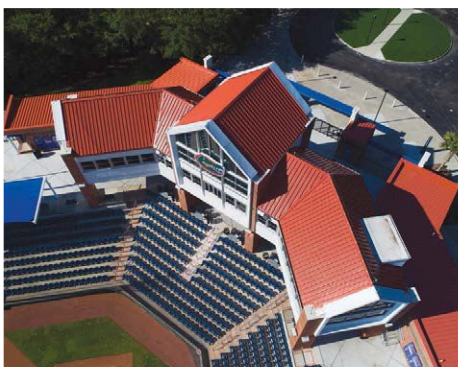
Unlike real wood, RAUVISIO terra is scratch-resistant and does not succumb to typical wear and tear. Rather than melamine paper, RAUVISIO terra is made from high-pressure laminate, which creates a deeply textured wood-grain surface that is durable. With the addition of REHAU LaserEdge technology, the RAUVISIO terra wall panels and doors have a seamless surface without visible joints.

Overall, the installation was easy, and the decision to incorporate the REHAU product proved to be successful. Completed one week before the home opener, the renovation of the visitors' clubhouse came as a surprise to most people but was an instant triumph.

"We loved seeing the reactions when the visiting teams would come through the locker room," Van Kley recalls.

RAUVISIO TERRA WITH REHAU LASEREDGE: REHAU,
www.rehau.com

KATIE SEASHOLE PRESSLY STADIUM, UNIVERSITY OF FLORIDA | Gainesville



PHOTOS: MATT HORTON, HORTONPHOTOINC.COM

» RETROFIT TEAM

ARCHITECT: Walker Architects, walker-arch.com
ROOFING INSTALLER: Thorne Metal Systems,
(904) 284-4353

» MATERIALS

The renovated stadium features all the latest amenities, but its design pays homage to the school's earlier days. The facility's steep-sloped metal roof in a signature orange-red finish is a clear reference to the buildings surrounding the stadium, and it also frames an impressive gateway into the ballpark's confines.

"The university is known for its Collegiate Gothic architecture and high-pitch, orange-red gable roofs," says Joe Walker, AIA, president of Walker Architects. "This project ran with the roof as the character-defining element of the exterior, and the final design is a direct nod to the Collegiate Gothic style."

The Collegiate Gothic roots clearly are seen in the stadium's signature entryway. In addition to tying the stadium to the surrounding campus, this 2-story

structure elevated on brick columns makes a statement for fans—as well as Gator opponents.

"From a fan's perspective, the geometry of the roof signals the entryway and frames the impressive—and, for a visiting team, intimidating—first glimpse of the field," Walker says. "For a player, when you look at the elevation of the facility from the field, the central gable is a centerpiece positioned directly over home plate."

Although officially a "renovation" because the original 1996 field wasn't altered, the upgraded facility has been largely rebuilt to include a new locker room, lounge training room and press box. According to Walker, the \$15 million project is a tribute to the work Head Coach Tim Walton has done building the team into a national presence since joining the school in 2006. Since 2008, the Gators have made it to the Women's College World Series eight times and have earned national titles twice.

Walker says metal roof panels were an obvious choice to create a visual link to the classic clay tiles that top many of the university's older structures. "It was the product with the best look for the project

price point and, aesthetically, it fit in well in this area of campus," he says. "Plus, it has the benefit of being low-maintenance and, importantly, it does a great job of keeping water out."

The architect specified 10,300 square feet of Petersen's Tite-Loc Plus in a Terra Cotta finish for the project. He says the choice of this particular profile was aided by advice from the company's technical staff. "It was Petersen that suggested we use the Tite-Loc Plus product with striations, knowing it would be a better product for our project with respect to minimizing oil canning and damage from potential impacts," Walker recalls.

Thorne Metal Systems handled the roof installation, which posed a few challenges, according to company Office Manager Cody Thorne. "It was a particularly tight site; we could only work around the perimeter because [other crews] were working on the field," he says, adding that the roof's steep slope also called for some extra attention. "It was 10:12, so a little more caution and safety were involved."

TITE-LOC PLUS IN TERRA COTTA: Petersen, pac-clad.com



PHOTOS: COURTESY EXCEL DRYER



VIP RESTROOMS, GILLETTE STADIUM | Foxborough, Mass.

► RETROFIT TEAM

ARCHITECT: Populous, populous.com

► MATERIALS

From the World Champion New England Patriots to Jay Z, Beyoncé and Taylor Swift, Gillette Stadium plays host to the top names in the world of sports and entertainment. The facility also is renowned for being on the cutting edge of green technology and sustainable design, so it's no surprise the stadium was an early adopter of the D|13 Sink System, featuring the new XLERATORSync Hand Dryer.

"The experience of watching the game at home on TV is almost better than sitting in the stadium, so over the past five years, we've put a lot of capital into Gillette Stadium to enhance the fan experience," says Jason Stone, senior director of Operations, Kraft Sports + Entertainment.

Gillette Stadium is now decked out with large LED screens, massive HD media walls, field-level

terraces, mezzanines, premium bars, luxury suites and other state-of-the-art features. The D|13 Sink System has been added as a high-end fixture in VIP areas, such as the Optum Field Lounge, Cross Pavilion and Putnam Club Lounge.

"Aesthetics are a big part of building these new spaces," Stone says. "The D|13 Sink System blends seamlessly with the other finishes we installed throughout the space. It gives our customers the extra VIP experience so when they walk up to the sink, they have the soap, water and hand dryer all in the same location."

The D|13 Sink System offers a 95 percent cost savings versus paper towels, eliminating labor, maintenance and waste while creating a hygienic restroom environment. Its state-of-the-art features include HEPA filtration, adjustable speed and heat, LED illumination and a Sound Suppression Air Delivery System.

In addition, the XLERATORSync Hand Dryer was

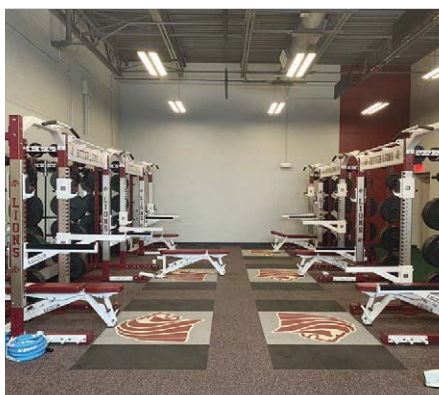
designed in collaboration with Excel Dryer and a world-renowned design firm to produce a "reverse airflow", which blows air/water away from the user, promoting hygiene and enhancing user experience.

The D|13 Sink System is fully customizable and adaptable to any size, shape or material. Several soap dispenser options are available, and the unit is compatible with faucet models from several manufacturers. Factory templates and custom 3D laser templating are available to reduce installation time and ensure accurate fit. All orders are purchased and shipped directly from D|13 Group.

"The level of service provided by the D|13 Group has been second-to-none," Stone says. "The systems work flawlessly. It's made it easy for our facility staff and has now boosted the experience of our customers using these facilities."

D|13 SINK SYSTEM, FEATURING THE XLERATOR-SYNC HAND DRYER: D|13 Group, www.d13group.com, and Excel Dryer, www.exceldryer.com

WEIGHT ROOM, CARDINAL RITTER COLLEGE PREPARATORY HIGH SCHOOL St. Louis



►► RETROFIT TEAM

CONSTRUCTION MANAGER AT RISK: Kwame Building Group, kwamebuildinggroup.com
GENERAL CONTRACTOR: Knoebel Construction, knoebelconstruction.com
ARCHITECT: JEMA, jemastl.com

►► MATERIALS

The school recently updated and expanded its weight room by approximately 1,200 square feet. The upgraded facility helps Cardinal Ritter College Preparatory High School develop and extend its athletic program and create a space that enhances the learning experience for students.

Kwame Building Group managed the design and construction process, performed cost estimates, produced project schedules and reviewed the design team's deliverables.

"This facility is nothing short of state-of-the-art," says Tamiko Armstead, the school's president. "It's on a collegiate level and fits nicely into our strategic health and wellness plan."

Coincidentally, Kwame Building Group's former project manager who oversaw the project is a Cardinal Ritter alumna. While a student, she participated in the Intern Leadership Program and interned for two summers at Kwame Building Group.

The following is a sampling of materials used in the project:

SEALERS AND HIGH-PERFORMANCE PAINT COATINGS: Sherwin-Williams, www.sherwin-williams.com

COMMERCIAL FLOORING: Ecore, www.ecoreintl.com, and Tarkett, commercial.tarkett.com/en_US

ATHLETIC TURF: GrassTex, grass-tex.com

ACOUSTICAL PANELS: Cloud-Lite from MBI, www.mbiproducts.com/products/cloud-lite-acoustical-baffles

►► THE RETROFIT

The renovation is part of Cardinal Ritter's Health and Wellness Initiative, funded in large part by charitable donations.

The renovated weight room adds collegiate-level exercise equipment, a large amount of natural light and direct access to outdoor fields. It also features a commercial washer and dryer and a charging station for student use. A new athletic field and track also was part of the school's athletic complex update.

The upgraded complex is a community resource for elementary schools, youth clubs and community-based organizations. It annually serves more than 10,000 youth and adults.

PHOTOS: KWAME BUILDING GROUP

DECKING, BLEACHERS AND BOARDWALK, WILD DUNES RESORT | Isle of Palms, S.C.



► RETROFIT TEAM

DECKING, BLEACHERS AND BOARDWALK INSTALLER:

Krueger Construction,
(843) 696-9916

SUPPLIER: Lowe's, www.lowes.com

► MATERIALS

Isle of Palms is located off the coast of Charleston, S.C., and is home to Wild Dunes Resort, a Hyatt gated community with beautiful beaches, world-class golfing and the award-winning Wild Dunes Tennis Center. The property's amenities are connected by boardwalk paths that wind through much of the retreat's oceanfront sites and attractions.

Recently, Wild Dunes management reached out to Joel Krueger, owner of Krueger Construction, to assess the structural integrity of the resort's boardwalk system, as well as the bleachers next to the Tennis Center's main court.

"The pressure-treated wood used to build the boardwalk and bleachers was decades old and in constant need of repair," Krueger explains. "Facility management agreed it was best to replace the existing structures with a composite material that would last for years with minimal maintenance."

While considering several products at his local Lowe's store, Krueger discovered MoistureShield Vantage decking, an uncapped wood composite board with a matte finish that evokes the look of real hardwood and has similar workability. Krueger learned it can stand up to the elements for more than 30 years with no structural field failures.

"The blazing sun, change in temperatures and saltwater can really take a toll on exterior wood products," Krueger notes. "We were instantly impressed with Vantage's ability to withstand a

seacoast climate, like ours. We certainly didn't want to install anything we had to stain, paint or repair on a regular basis. Affordable, clean and lower-maintenance were all the key selling points that made this an easy decision for our Wild Dunes clients."

"The boardwalk and tennis bleachers are essential to our fabulous getaway experience," comments Roger Martin, Wild Dunes Resort's facility manager. "Tens of thousands of visitors travel back and forth on the boardwalk pathways while spectators regularly use our Tennis Center to watch matches, enjoy refreshments and have a good time. Both are integral to the outstanding services and comforts that our visitors and residents have come to expect, so we wanted a top-quality material. We were immediately impressed by the durability and aesthetic of the MoistureShield Vantage decking."

The project began with the complete renovation of the Tennis Center, ranked a U.S. top-10 resort by *Tennis* magazine for the past decade. Featuring 12 clay courts, the main court is used for celebrity and professional matches throughout the year. The renovation included a new underlying structure with MoistureShield Vantage decking, face-fastened with color-matching screws and four levels of Vantage bleacher seats. Totalling approximately 9,000 square feet, the job was completed in about three months

by a five-man crew from Krueger Construction.

"It turned out great," Krueger says. "Everyone loved the look, feel and comfort of the new bleachers, as well as the deck, which was designed with bench seating, tables and chairs so parties could be held. In fact, the clients loved the Vantage decking and Cape Cod Gray color so much they decided to use the same decking to replace the resort's luxury boardwalk."

For nearly 40 years, the boardwalk's winding pathway has interconnected the resort's AAA Four Diamond Boardwalk Inn Hotel to the oceanfront beach, Grand Pavilion, townhomes, two large oceanfront pools, and popular Beachside Burgers & Bar.

Starting in January 2021, the boardwalk's entire reconstruction took almost five months to complete. All pressure-treated lumber was replaced with MoistureShield's Vantage grooved decking with hidden fasteners throughout the 24,000-foot walkway system, including six sets of stairs and one ADA-certified handicap ramp, allowing access to the beach.

Like all MoistureShield products, Vantage features Solid Core technology, which runs through the entire board to ensure protection without a cap. It creates an impermeable barrier that fights damage from moisture, rot, insects and other harmful elements. As a result, there's no need for painting, staining and continuous upkeep.

The Wild Dunes boardwalk phase was completed just in time for the resort's busy summer tourist season.

MOISTURESHIELD VANTAGE IN CAPE COD GRAY: MoistureShield, www.moistureshield.com

FUNCTIONAL & BEAUTIFUL

There Are Several
Important Considerations When
Designing Today's Public Restrooms

PHOTOS COURTESY JCC ARCHITECTURE

The restroom embodies the essence of what designers do on a daily basis—crafting functional spaces that also are beautiful. To create a positive and uplifting experience in these heavily used public environments, interior designers must consider hygiene and safety components, prioritize resource conservation and low maintenance, and ensure these spaces are inclusive for all individuals. All these practical aspects must be incorporated into the design without sacrificing the aesthetic requirements for any given project.

WRITTEN BY | RICK MARENCIC, IIDA NCIDQ

PRIORITIZE CLEANLINESS AND USER SAFETY

Since the beginning of the global pandemic, public spaces have emphasized the need for cleanliness now more than ever, setting an expectation for the highest level of sanitation in their facilities. These heightened expectations have occurred in all sectors, from education and transportation to entertainment and hospitality. In restrooms, this trend is actualized through solutions, such as waterless toilets and urinals, which do not require flushing and are touch-free. There also is a greater emphasis on antimicrobial and easily cleanable materials that maintain a contemporary feel without sacrificing style for safety.

Touchless technology has proven to be one of the most long-lasting innovations in restroom design and first came into prominence with sensor-activated faucets in the early 1980s. These inventions eliminate the need for users to touch faucets, soap dispensers and toilet flushers, greatly reducing bacterial spread.


Motion-sensor technology also can allow for automatic flushing once a toilet lid is closed, which helps combat toilet plumes and the dispersal of airborne germs that occur during a flush.

In addition to hygiene considerations, restroom designers must account for public safety through compliance with the ADA to ensure the needs of the most vulnerable in our society are addressed. Importantly, restroom designers can limit the risk of slip-and-fall instances by employing high-traction flooring and design strategies to reduce water spillage. Trough-style sinks with touchless faucets, soap dispensers and dryers all in one place are one example because these systems contain the acts of washing and drying hands to one space, reducing spills on the floor.


CONSIDER MAINTENANCE AND CONSERVATION

With today's changing climate and dwindling resources, public-restroom designers must take into consideration

« Along with providing aesthetic qualities, design solutions that are durable and easy to clean are increasingly a priority in public restrooms. For example, gauged porcelain tile panels and slabs have become thinner, lighter and stronger. Usable for floors, walls and vanities, this option is aesthetically diverse, visually desirable, and can echo marble and limestone slab patterns without the cost and installation difficulty associated with those materials.



WHETHER IT'S A PUBLIC
RESTROOM FOR A
CASINO, ENTERTAINMENT
CENTER, AIRPORT OR
HOTEL, DESIGNING
FUNCTIONAL SPACES
THAT ARE ALSO
BEAUTIFUL IS THE
PREEMINENT CHALLENGE
FOR RESTROOM
DESIGNERS.



design elements that reduce waste. Common additions to make a public restroom more sustainable include motion-activated faucets, hand dryers and the like, which not only reduce germ spread, but also conserve our planet's natural resources by preventing paper towel and water waste. Waterless or composting toilets today are primarily used in rural residential areas where water and sewer hookups are more expensive. Because of their ability to conserve water, there is tremendous potential for this technology to be expanded for higher-capacity public restrooms in the future. Although still outliers in mainstream use, waterless toilets will become more widely adopted as water prices spike and water continues to be a scarce resource in many regions.

Along with the push to conserve resources, designers want solutions that are longer-lasting and low-maintenance. Maintenance labor costs can be hefty and are a growing concern for restroom owners. Along with providing aesthetic qualities, solutions that are durable and easy to clean are increasingly a priority. For the last 10 years, gauged porcelain tile panels and slabs have become thinner, lighter and stronger, providing a better solution for these types of environments. Usable for floors, walls and vanities, this option is aesthetically diverse, visually desirable, and can echo marble and limestone slab patterns without the cost and installation difficulty associated with those materials. Large-scale panels, more than 12-feet long, have fewer grout joints and larger surface areas, making them easier to clean with compelling beauty and durability often ensuring them as a first choice for many designers and architects.

UNDERSTAND GENDER INCLUSIVITY

Creating inclusive public restrooms should always be a top priority for designers. ADA compliance is a given—and a good

starting point for the incorporation of gender inclusivity. Gender-inclusive or -neutral restrooms usually take the form of single-occupancy toilets because they not only create a more personal, safe experience, but also reduce shared toilet plumes and noise, as well as increase ventilation. The most commonly seen adaptation to this model is the family restroom, which is typically found at airports, stadiums or other high-traffic venues. Although designated for families, this type is available to any user and functions as a single-occupancy toilet.

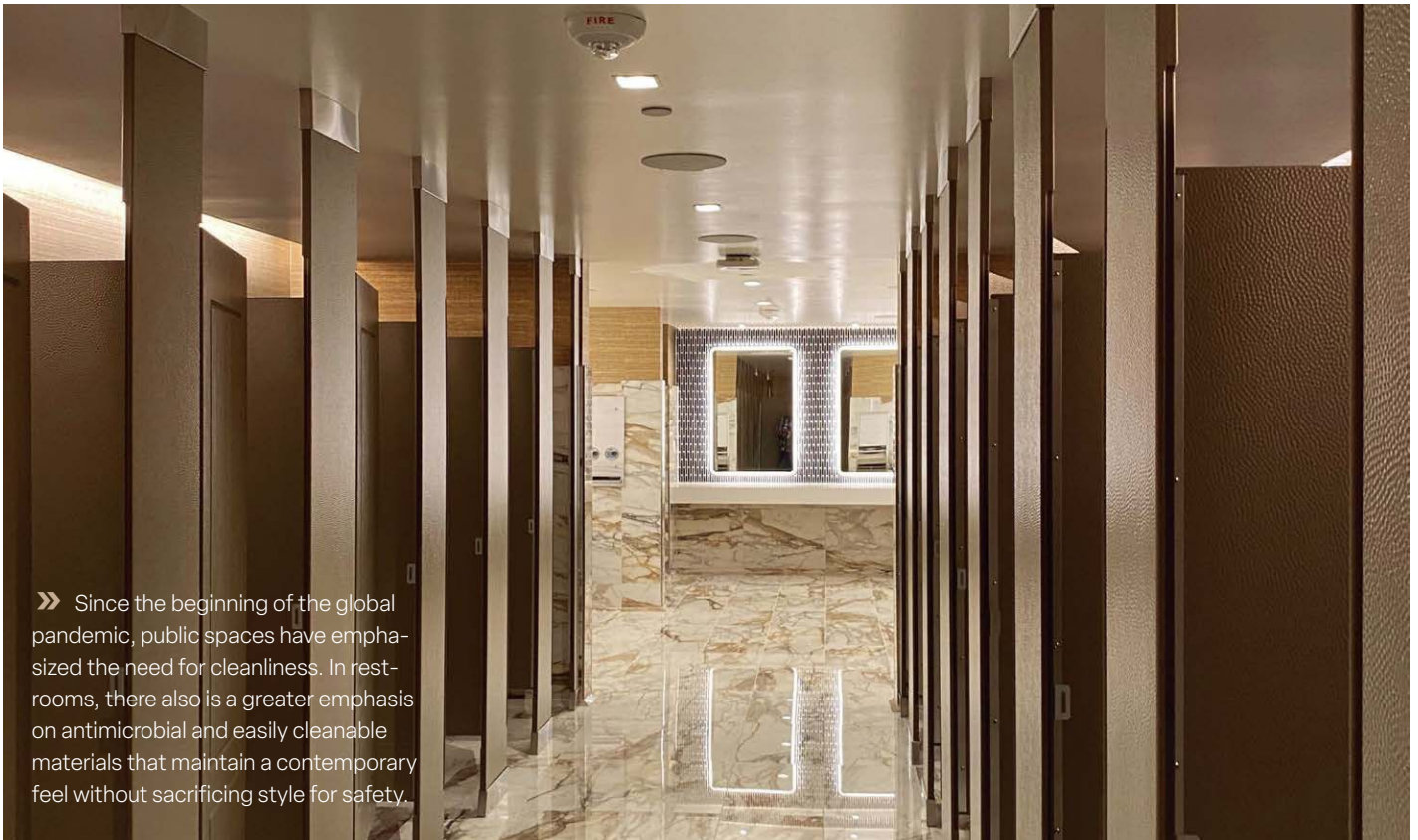
More recently, we are seeing the placement of gender-neutral restrooms in conjunction with sex-segregated bathrooms. However, to date, an effectively designed gender-neutral public toilet rolled out on a larger scale remains elusive because of a cultural stigma associated with any changes to the 18th century sex-segregated toilet-room model that we live with to this day. Local and state legislation will continue to shape how these facilities look across the U.S., and it is recommended to stay up-to-date with the legal requirements in your jurisdiction.

Space limitations, cost, privacy and availability of real estate in heavily trafficked areas are all concerns that dictate the economic challenges to establishing gender-neutral restrooms. One simple approach is to change the sign on an existing single-occupancy restroom to read "All Gender Restroom". Importantly, the designer and owner must consider the possibility that not all gender-neutral persons and families feel comfortable with an interchangeable function. One solution is to establish gender-neutral bathrooms separate from dedicated family restrooms.

Creating new gender-neutral facilities for urban environments, indoor and outdoor, has its own set of challenges and requires input from a variety of disciplines—from city planners to interior and industrial designers. Modular outdoor

» Placing sinks with faucets and soap dispensers, as well as dryers, in one location contains the acts of washing and drying hands, reducing spills on the floor and limiting risk of slips and falls.





» Since the beginning of the global pandemic, public spaces have emphasized the need for cleanliness. In restrooms, there also is a greater emphasis on antimicrobial and easily cleanable materials that maintain a contemporary feel without sacrificing style for safety.



ZIP-RIB® standing seam metal cladding systems - a time tested and versatile solution.

- Perfect for roof and wall applications
- Wide variety of materials and finishes
- Factory quality on-site roll forming available directly to roof
- Continuous lengths exceeding 460'




(800) 646-3826
www.imetco.com

©2023 Innovative Metals Company, Inc.

public restrooms in Paris, Los Angeles and San Francisco indicate a trend that is starting to expand because of the importance of high levels of sanitation in these public spaces. Choosing the location of these units within the fabric of the city needs the insight of urban planners in cooperation with community advocates and city planners. Likewise, the design of the units themselves requires weather-tightness and ease of installation; the interior must have proper clearance with careful attention to ergonomic details that are engineered and sculpted for cleanliness and ease of use.

CREATE HEALTHY, DURABLE, INCLUSIVE AND BEAUTIFUL RESTROOMS

Whether it's a public restroom for a casino, entertainment center, airport or hotel, designing functional spaces that are also beautiful is the preeminent challenge for restroom designers. These spaces must prioritize the user's health through cleanliness and user safety, utilizing touch-free technology when possible. They should employ solutions that limit waste and conserve resources while minimizing maintenance costs and increasing the life-cycle efficiency of the design elements.

Additionally, public-restroom designers should take care to consider the needs of all public members, including accounting for ADA compliance and gender inclusivity. By incorporating each of these components into the design of the space without compromising aesthetic quality, we can create public restrooms that are positive and welcoming to all users. 

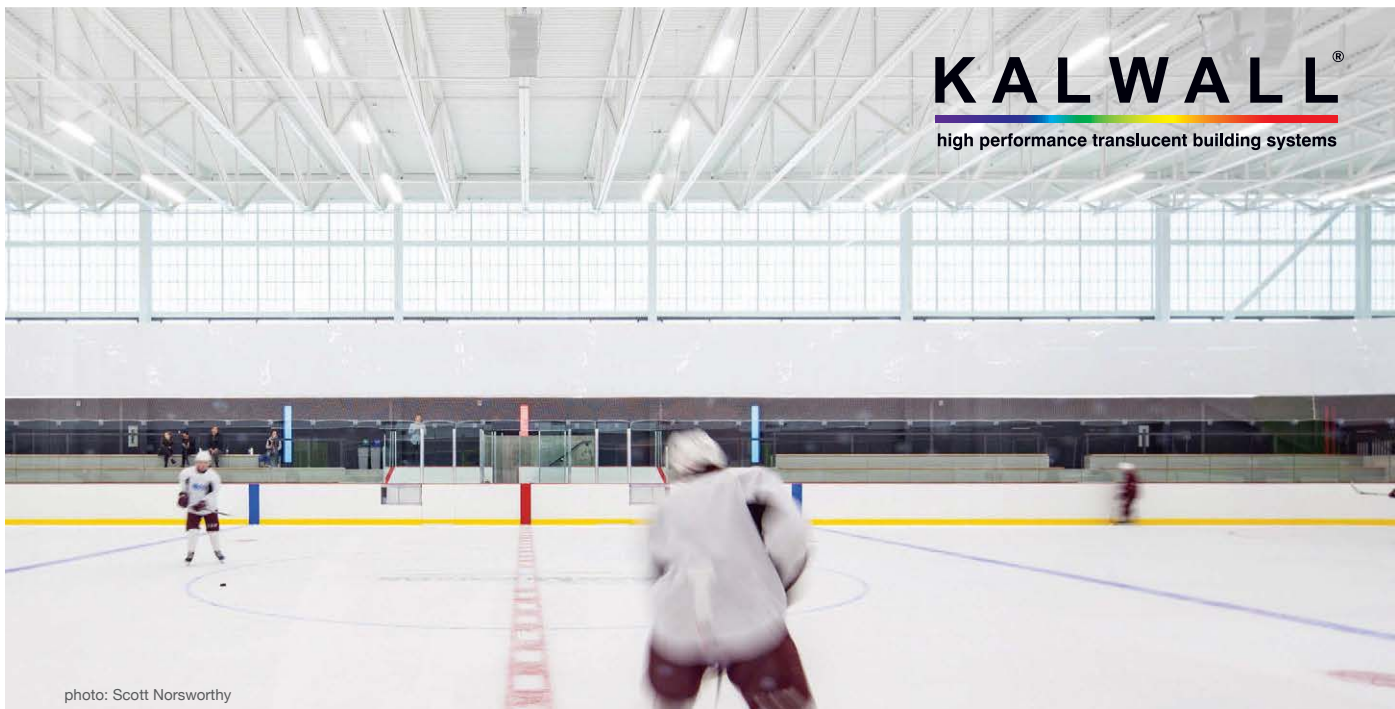
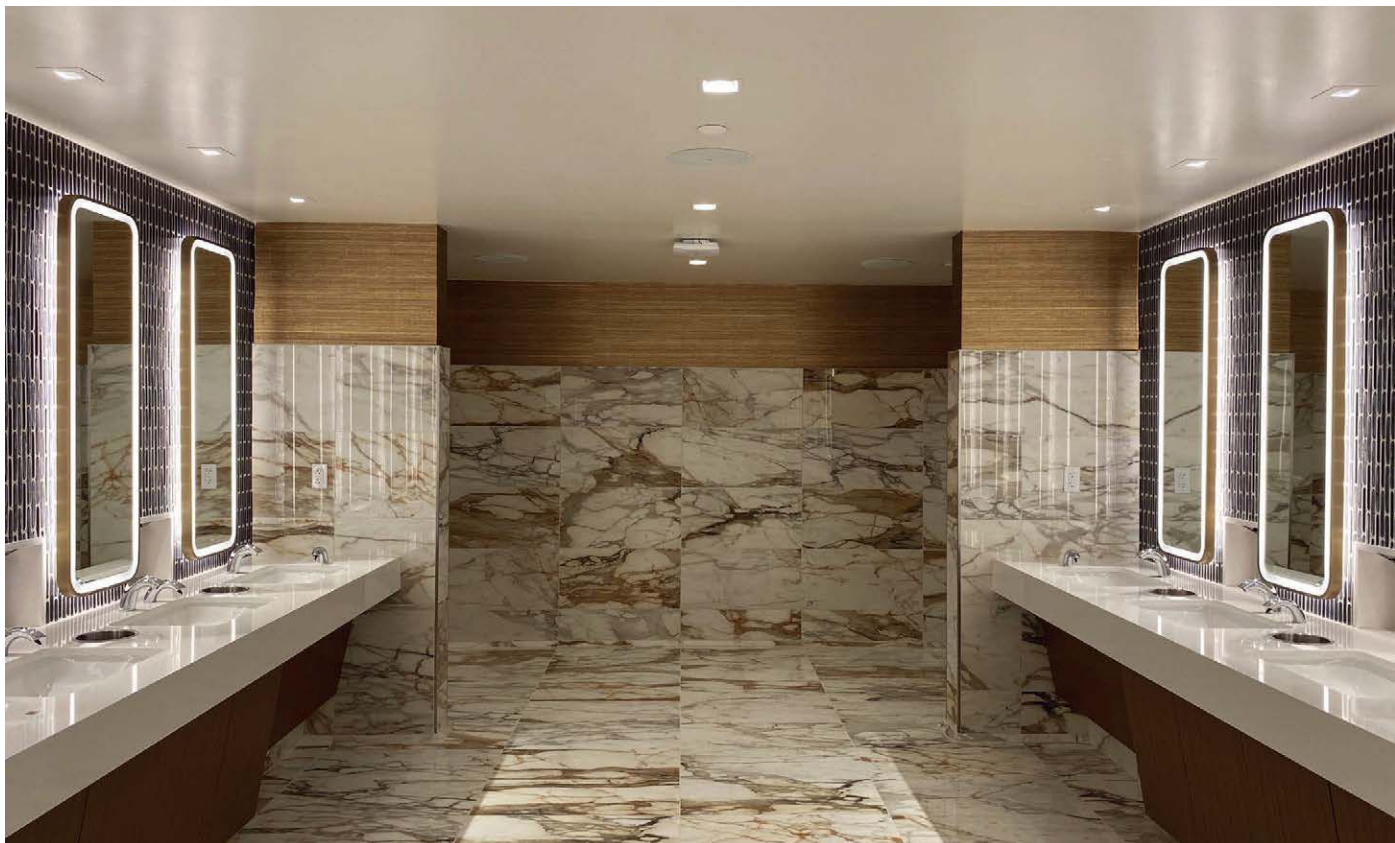


photo: Scott Norsworthy

Engineering daylight

Today's LEDs may last up to 50,000 hours, but Kalwall will continue harvesting sunlight into museum-quality daylighting™ for a lot longer than that. The fact that it eliminates glare and minimizes solar gain, while insulating more like a wall than a window, is just a nice bonus.

FACADES | SKYROOFS® | SKYLIGHTS | CANOPIES

schedule a daylighting consultation at KALWALL.COM

BUILT FOR THE 1962 WORLD'S FAIR, SEATTLE'S
CLIMATE PLEDGE ARENA UNDERWENT A
RADICAL TRANSFORMATION WITH THE
FUTURE OF LIVE EVENTS IN MIND

LOOKING AHEAD

PHOTOS: ALEX FRADKIN



WRITTEN BY | MEREDITH MORTON

Climate Pledge Arena, formerly KeyArena, is the most significant private investment in Pacific Northwest sports and entertainment history. The arena's 740,000-square-foot interior has become the home of the WNBA Seattle Storm and NHL Seattle Kraken. The venue also hosts concerts and other entertainment. An icon of the neighborhood, the arena has brought new life to the Seattle Center, which also contains the iconic Space Needle, Chihuly Garden and Glass, and Pacific Science Center.



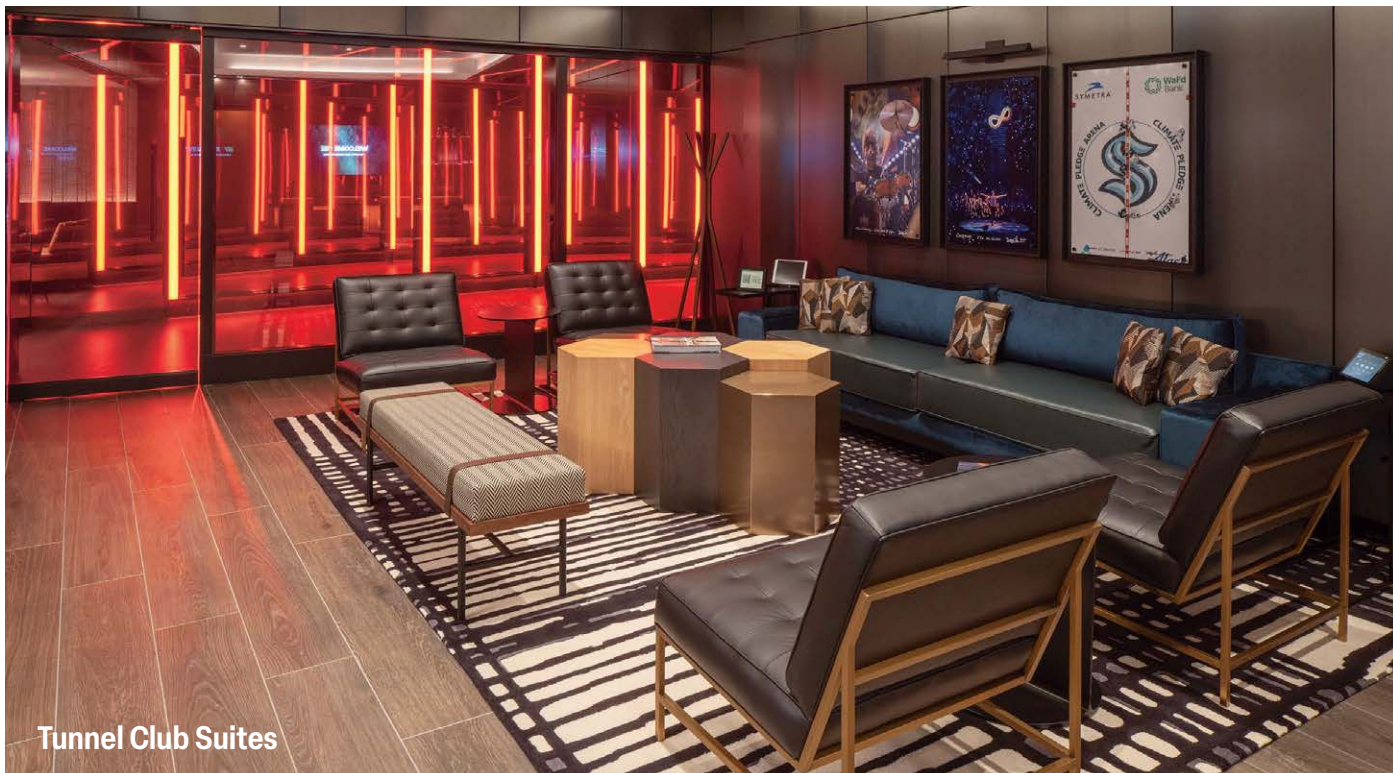
Designed in 1962 by architect Paul Thiry as the Washington State Pavilion for the World's Fair, the space underwent a radical transformation to become a multi-use complex that simultaneously honors Seattle's iconic history and celebrates its future.

Inspired by the Pacific Northwest, Rockwell Group designed a comprehensive set of amenities inside Climate Pledge Arena. Drawing on its hotel and restaurant expertise and decades of experience designing for performances and live events, Rockwell Group weaved a hospitality approach throughout at a variety of scales. The spaces include a private lounge and supper club; two luxury suite types, featuring Tunnel Club Suites and The PitchBook Suites; a modern food hall, known as AMEX Hall; two private clubs with craft beer offerings, the Symetra Club and WaFd Bank Club; and a Space Needle Lounge with views of the Space Needle.

THE FUTURE OF LIVE EVENTS

Seattle's Climate Pledge Arena has been designed with the future of live events in mind.

"Within Climate Pledge Arena, we have created unique hospitality spaces that will produce unprecedented entertainment experiences. We drew on the building's history as the site of the 1962 World's Fair, which was a catalyst for so much innovation in the city," says David Rockwell, founder and president, Rockwell Group. "We are thrilled to continue that legacy of innovation in the arena with state-of-the-art technology and unique interactions



Tunnel Club Suites

» RETROFIT TEAM

PREMIUM SPACES INTERIOR

ARCHITECT // Rockwell Group,
www.rockwellgroup.com

OWNER // Public-private
Partnership between Oak View
Group, www.oakviewgroup.com;
Seattle Kraken Hockey,
www.nhl.com/kraken; and Seattle
Center, www.seattlecenter.com

OPERATOR // Oak View Group,
www.oakviewgroup.com

PROJECT MANAGER // CAA
ICON, www.caaicon.com

ARCHITECT // Populous,
populous.com

GENERAL CONTRACTOR //
Mortenson,
www.mortenson.com

LIGHTING CONSULTANT //
ME Engineers, me-engineers.com

for audiences to fully participate and immerse themselves in.”

“I have always had a fascination with this building as a native of Seattle,” adds Shawn Sullivan, partner, Rockwell Group. “We are honored to have the opportunity to restore and redesign it with new ways for people to come together and make collective memories. It’s exciting to help reimagine the arena for future generations to come.”

EVENT LEVEL 100

■ Tunnel Club Suites

The 19 residential-style Tunnel Club Suites were designed to offer a personal and theatrical connection with the game and the rituals of preparing to go out onto the court or ice. From each suite, guests can observe players walk through a tunnel from the locker room. Seen through a one-way mirror, the passageways are outfitted LED screens. Suite holders have direct access through the tunnel to their dedicated seating inside the arena. The suites encompass 18,870 net square feet.

■ Verizon Lounge

The Verizon Lounge is an exclusive private lounge and supper club. It was inspired by an upscale version of Seattle’s historic underground passageways. Plush niches envelop

guests in emerald velvet drapery and feature a series of barrel-vaulted lounge spaces that orient toward a central bar. The sophisticated palette features a vaulted white plaster ceiling, smoked mirrors and brass screens that offset deep aquamarine millwork wall panels. The 3,220-square-foot lounge includes 117 seats.

MAIN CONCOURSE, LEVEL 300

■ The Symetra Club and The WaFd Bank Club

Accommodating 1,300-1,700 guests, the 12,380-square-foot Symetra and WaFd Bank clubs feature a bar area flanked by communal gathering areas, specialty food counters and a craft brewery. Drawing from found industrial spaces in Seattle, such as Gas Works Park, the club features corrugated steel, rough-hewn white oak, reclaimed brick, woven steel mesh and board-formed concrete.

A central illuminated backlit double-height bar dominates the space, adding a voyeuristic element where guests can “see and be seen” from multiple levels and vantage points. The Suite Concourse above is crafted to look like a suspended catwalk or bridge while the craft-beer area, inspired by Seattle’s Pike’s Place market, features bright, festooned lights and bold signage.



Verizon Lounge

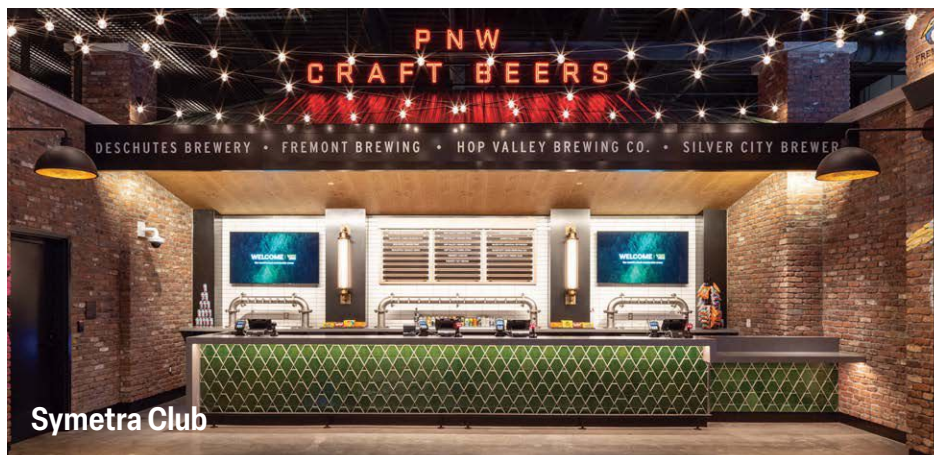
SUITE LEVEL 400

■ The PitchBook Suites

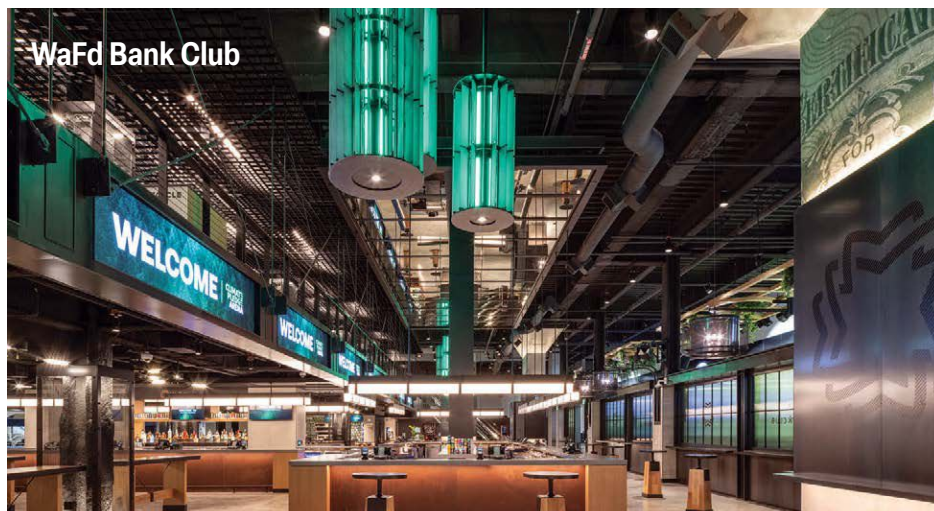
Cantilevered over the seating bowl, 40 private sideline suites accommodate 16 people each. Inspired by a Seattle loft, the 500-square-foot suites feature a bar and kitchen area defined by a porcelain-tile stone backsplash and a sloping wood ceiling angled to a view of the arena.

Located at the southwest and southeast corners of the arena's PitchBook Suites level, two 35-foot-long interactive flip disc walls utilize bespoke software and depth-sensing cameras to respond to guests' gestures and movements. This level also features real-time visuals that respond to the action in the arena, all on an innovative display that is highly sustainable. At 7-feet tall and 35-feet wide, the screens bring the action, excitement, and experience of stadium events to the audience, even when they don't have eyes on the action.

Conceptualized by LAB at Rockwell Group, Rockwell Group's experience design and technology studio, these interactive walls were created in partnership with PitchBook, SportFive, Climate Pledge Arena and Senovva.



Symetra Club



WaFd Bank Club

PitchBook Suites



The Moët and Chandon Impérial Lounge

Five intimately scaled rooms frame views of the bowl through broadly arched openings. The all-inclusive private restaurant's high-end finishes are inspired by upscale interpretations of the traditional outdoor enthusiast's repertoire: a plaid marble mosaic floor, charred wood walls reminiscent of a campfire and lantern-inspired lighting. Toward the bar, design touches include leather banquette seating and velvet curtains. The side dining rooms are completed with dramatic lighting, oak walls and stone floors. With a total of 7,680 square feet, the lounge provides 299 seats.

Moët and Chandon Impérial Lounge



Moët and Chandon Impérial Lounge



AMEX Hall (Food Hall)

The 10,985-square-foot food hall is designed to highlight Seattle's robust culinary offerings. Bold signage, painted concrete floors and custom murals by local artists add an industrial feel. Five food stalls, including a vintage Airstream trailer, feature wine and whiskey bars, pizza, sandwiches and desserts. Clerestory windows bring daylight and views into the club from the exterior plaza.

(continues on page 48)



PREMIER BUTYL SEALANT TAPES

A LASTING DEFENSE

FOR OVER 30 YEARS, MANUFACTURERS AROUND THE WORLD HAVE ENTRUSTED THEIR BUILDINGS' MOISTURE DEFENSE TO THE MOST RELIABLE BUTYL SEALANT ON THE MARKET, MB10A BUTYL TAPE.



800.288.9489

GSSISEALANTS.COM


TOP MEZZANINE LEVEL 550

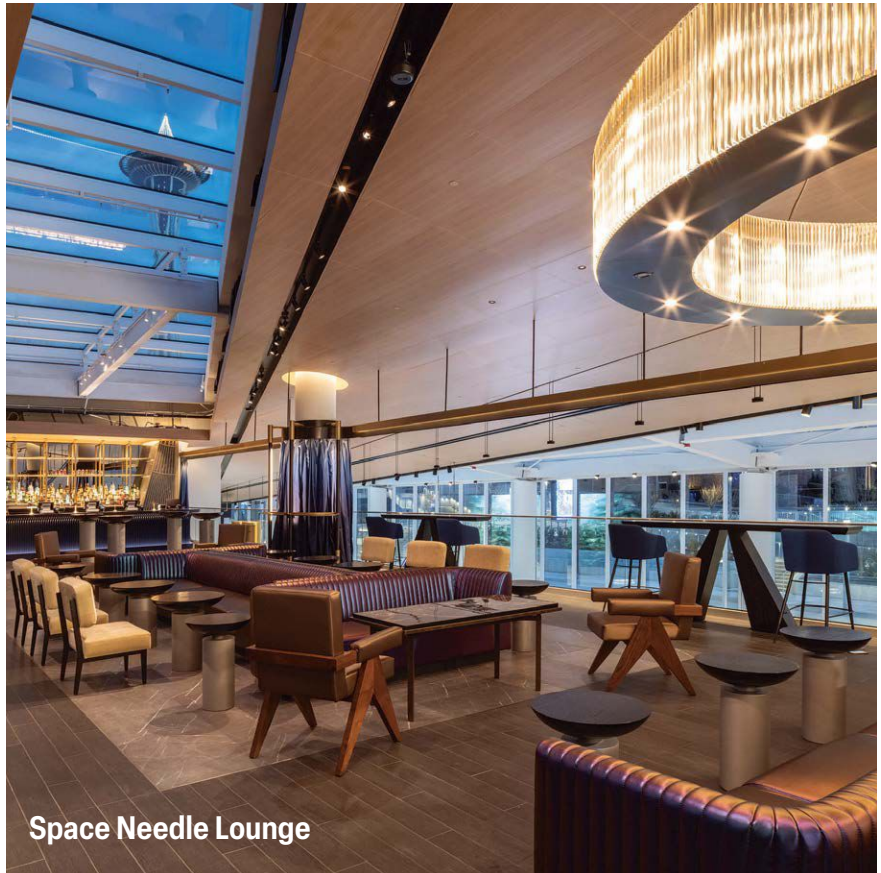
■ Space Needle Lounge (Cocktail Bar and Event Space)

Located on the top level, the 8,380-square-foot lounge offers views of the Space Needle through an over-scaled skylight. The intimate club, providing 114 seats, doubles as an event space and features blue ombré velvet waterfall curtains offset by brass finishes and exposed concrete.

WORLD-CLASS ARENA

Rockwell Group achieved its goal of taking guests on a unique journey, infusing the excitement of live events with the specificity of the Pacific Northwest.

“Rockwell Group has created an unprecedented experience for fans, where they get to be part of the theater and emotion of the action in the arena,” notes Tim Leiweke, CEO of Oak View Group. (Climate Pledge Arena is a public-private partnership between Oak View Group, Seattle Kraken Hockey and Seattle Center. Oak View Group also is the operator.) “From the private suites to the AMEX food hall, we’re inviting our guests to a beautiful world-class arena with daylit spaces inspired by the city that surrounds us.” 



Space Needle Lounge

» MATERIALS

Throughout

BLACK AND WHITE PORCELAIN SLABS //

Florim, www.florim.com/en

TILE // Alchemy Materials, www.alchemy-materials.com; Daltile, www.daltile.com; Nemo Tile + Stone, www.nemotile.com; and Design and Direct Source, ddstile.com

PAINT // Benjamin Moore, www.benjaminmoore.com

ANTIQUE GLASS MIRROR // Spancraft, www.spancraft.com

OAK WALLCOVERING // Koroseal, koroseal.com

Tunnel Club Suites

FROSTED SMOKE MIRROR // Spancraft, www.spancraft.com

TUNNEL PASSAGEWAY MIRRORRED STRETCH CEILING SYSTEM // Barrisol, barrisolusa.com

TUNNEL PASSAGEWAY ONE-WAY MIRROR SYSTEM ON CLEAR GLASS // Duggal Visual Solutions, duggal.com

Verizon Lounge

VELVET PANELS // Panaz, www.panaz.com

FROSTED SMOKE MIRROR // Spancraft, www.spancraft.com

ANTIQUE-BRASS POWDER COAT //

Scuffmaster, www.scuffmaster.com

WALLCOVERING // Maya Romanoff, www.mayaromanoff.com

The Symetra Club and The WaFd Bank Club

FLUTED GLASS // McGrory Glass, mcgrory.com

OPEN-CELL CEILING PANELS // METALWORKS from Armstrong Ceiling & Wall Solutions, www.armstrongceilings.com

GREEN WALL TILE // Theia Creative Tiles, www.theiatiles.com

BRICK VENEER // Brick it, brickit.com

Pitchbook Suites

PORCELAIN STONEWARE SLAB //

Florim, www.florim.com/en

WOOD PORCELAIN TILE // Porcelanosa, www.porcelanosa-usa.com

WALLCOVERING // Maya Romanoff, www.mayaromanoff.com

WALNUT WALLCOVERING // Koroseal, koroseal.com

The Moët and Chandon Impérial Lounge

CHARRED TEAK // Indoteak Design, indoteakdesign.com

STONE AND MARBLE PLAID TILE //

AKDO, professional.akdo.com

RED BAR DIE TILE // Nemo Tile, www.nemotile.com

ANTIQUE-BRASS POWDER COAT //

Scuffmaster, www.scuffmaster.com

BRASS METAL LAMINATE // Chemetal, www.chemetal.com, and The October Company, www.octobercompany.com

ACCENT STONE // Florim, www.florim.com/en

AMEX Hall

CHEVRON WOOD TILE // Indoteak Design, indoteakdesign.com

WHITE SUBWAY TILE // Nemo Tile, www.nemotile.com

Space Needle Lounge

BLUE-STAINED CONCRETE // Globmarble, globmarble.com, for SureCrete, surecretedesign.com

OMBRE DRAPERY // Opuzen, opuzen.com

FROSTED SMOKE MIRROR // Spancraft, www.spancraft.com

ANTIQUE-BRASS POWDER COAT //

Scuffmaster, www.scuffmaster.com

FLOOR TILE // Florim, www.florim.com/en

A modern interior space with a large window and a wall, both labeled R16. The room has a wooden floor and a white wall. The window looks out onto a city skyline. The wall is on the left, and the window is on the right. Both are labeled with an orange box containing the text 'R16'.

R16

R16

These R the same

Get wall-like R-values — with the aesthetic and daylighting benefits of glass.

With *VacuMax*™ vacuum insulating glass (VIG) by Vitro Architectural Glass, it's possible to achieve R-values as high as R16 in a nominal 1-inch insulating glass unit. *VacuMax*™ VIG — the ultimate thermal insulation in a window.

Learn more at VacuMaxVIG.com

VacuMax™
Vacuum Insulating Glass

Vitro®
Architectural Glass

IT'S FUN TO PLAY AT



PHOTOS: DAVID WAKELY PHOTOGRAPHY unless otherwise noted

THE YMCA



A Teen Task Force Helps Create a Youth Hang-out Spot within a Former Utility Payment Center

WRITTEN BY | SCOTT SALGE, AIA, LEED AP

Nearly 60 years on, the 2-story concrete columns of the former PG&E bill-payment center stand tall in the civic hub of downtown Berkeley, Calif. The utilitarian, industrial building has, however, adopted a new color palette: bright green. It also has a new purpose: serving Berkeley teens.

When the Berkeley YMCA first approached PG&E to inquire about purchasing the decommissioned bill-payment center, PG&E responded by donating the building—the first of many displays of cooperation and collaboration for the greater good and a commitment to Berkeley's youth.

The building is centrally located within Berkeley's downtown core, which creates a visual and geographic connection to Berkeley's central civic park, adjacent police station and school-board building, Berkeley High,



THE BRIGHT-GREEN WALL at the entrance of the building was chosen by the Teen Task Force at a rousing Design Review meeting where the teens spoke passionately about what the color green means to them: hope and opportunity.



A TEEN TASK FORCE WOULD BE INVOLVED IN EVERY STEP OF THE PROJECT, BEGINNING WITH EVALUATING AND SELECTING THE ARCHITECTURE FIRM TO DESIGN THEIR BUILDING.



Berkeley's only high school, sits across the street, making the YMCA a convenient and safe place for teens to hang out after school. The prominent location makes a weighty statement of the city's priorities and commitment to the future.

With the site secured, the next step was for a design team to get involved, but the design-assist delivery method would have some special variables: A Teen Task Force would be involved in every step of the project, beginning with evaluating and selecting the architecture firm to design their building. The opportunity to involve the end-users in the bidding, design and construction process was a clear win-win.

"We've been able to give these kids an unbelievable project experience," says Fran Gallati, YMCA CEO.

Noll & Tam Architects, a Berkeley-rooted firm with a strong commitment to the community and sustainability, was selected to lead the project. Thanks to the firm's vision, the adaptive reuse of the existing building came to fruition.

WINDOW WITH A VIEW

Although the building was designed as a purely functional space with very little room designated for public interaction, Noll & Tam never considered demolition.

The potential for adaptive reuse was so great that the design team, informed by the Teen Task Force, felt the project's goals could be achieved within the existing building.

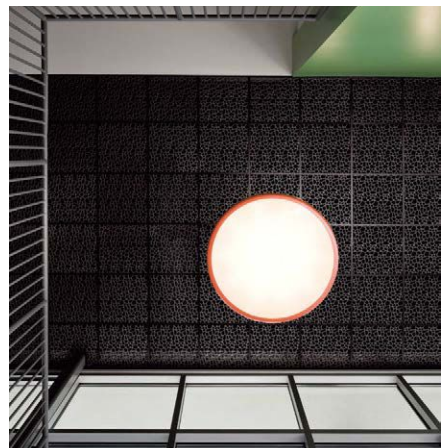
"Pretty much all of the structure remains ... the idea was to be as progressive as possible and part of that means being sustainable," explains Janet Tam, principal-in-charge.

The existing 4,500-square-foot footprint, architectural lines and prominent columns largely remain the same; the previous structure makes up 40 percent of the total new structure. However, the original poured-in-place concrete building's eastern and western façades were windowless, and its colonnaded southern façade, which looks out over a park and across to Berkeley High School, included a dark, nondescript portal—less than ideal for a vibrant teen center.

The concrete box-like construction provided a strong foundation to work from: To liven up the dark, foreboding feel of the space, the team added operable windows to the previously non-fenestrated façades while maintaining most of the concrete structure and the waffle slab on the second floor. The tilt-up panels were removed and the east and west walls gained windows to bring in daylight

THE NEW 3-STORY STAIRWELL was built specifically to be a surface for a mural. Led by a local artist selected by the Teen Task Force, the teens held a session to develop the mural concept and helped paint the large piece, which is visible from the street through the glass façade.

The **GREATEST STRUCTURAL DIFFERENCE** made to the existing building was the addition of a third floor to house the YMCA administrative offices and create a location for a roof garden overlooking the public park.



■ Retrofit Team

ARCHITECT AND INTERIOR DESIGNER //

Noll & Tam Architects,
www.nollandtam.com

- Janet Tam, principal-in-charge
- Alyson Yarus, project manager
- Scott Salge, project manager

GENERAL CONTRACTOR //

Pankow,
www.pankow.com

CIVIL ENGINEER //

KPFF, www.kpff.com

STRUCTURAL ENGINEER //

IDA
Structural Engineers, www.ida-se.com

MECHANICAL AND ELECTRICAL

ENGINEER // Timmons Design Engineers,
(415) 957-8788

LANDSCAPE ARCHITECT //

Dillingham
Associates, www.dillinghamlandarch.com

■ Materials

CURTAINWALL AND SKYLIGHTS //

Viracon, www.viracon.com

GLASS //

Kawneer, www.kawneer.com

LOW-SLOPE ROOFING //

Johns Manville,
www.jm.com

RECEPTION COUNTERTOPS //

Vetrazzo,
www.vetrazzo.com

RESTROOM WALL TILE //

Vidrepur Glass
Mosaic, www.vidrepur.com

CARPET //

Interface, www.interface.com

LIGHTING CONTROLS //

Wattstopper,
www.legrand.us/wattstopper

PHOTOVOLTAICS //

Sun Light & Power,
www.sunlightandpower.com

PLUMBING FIXTURES //

American
Standard, www.americanstandard-us.com,
and Toto, www.totousa.com

BUILDING MANAGEMENT SYSTEM //

Schneider Electric, www.se.com

COOLING //

Mitsubishi Electric
Trane HVAC US LLC,
www.mitsubishicomfort.com



and allow views in and out of the program spaces.

Other features, such as a hydronic heating system, were added into the floor slabs on the first and third floors, and photovoltaic panels, which generate electricity for the building and hot water, were mounted to the roof. The building has achieved LEED Platinum.

GOING UP

The greatest structural difference was the addition of a third floor to house the YMCA administrative offices and create a location for a roof garden overlooking the public park. Adding the story on top was about densification, maximizing the footprint of

the building by going up instead of out.

The newly installed 3-story stairwell reaching this new addition was built specifically to be a surface for a mural. Led by a local artist selected by the Teen Task Force, the teens held a session to develop the mural concept and helped paint the large piece, which is visible from the street through the glass façade.

The interior of the existing space was largely vacant, making it relatively easy for the design team to create flexible, functional spaces to meet the programming needs of the YMCA Teen Center—everything from dance classes to tutoring to poetry slams. The Teen Task Force recognized the structural steel and concrete as signifi-





THE INTERIOR of the existing space was largely vacant, making it relatively easy for the design team to create flexible, functional spaces to meet the programming needs of the YMCA Teen Center—everything from dance classes to tutoring to poetry slams.

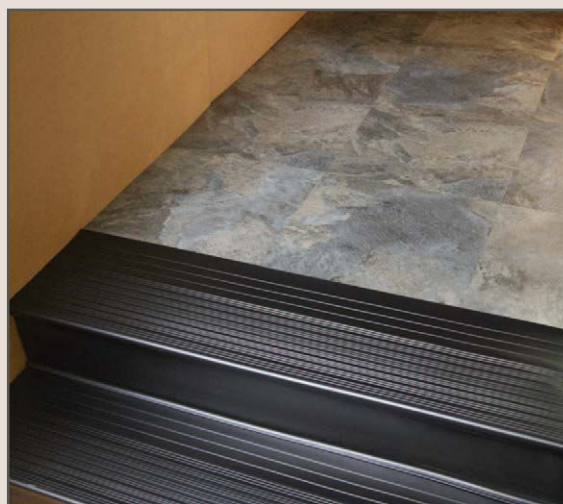


VINYL STAIR TREADS & LANDING TILES

MAKE STAIRS & LANDINGS SAFE WITH MUSSON VINYL TREADS AND TILE

- Excellent for commercial, industrial and institutional use
- Vinyl treads are available in four colors and a variety of sizes and styles
- Contrasting 18" x 18" vinyl tiles have a durable 40 mil wear layer
- Matching cove risers are also available

*Visit our website for additional information
or to request samples and literature.*



MUSSON RUBBER CO.

P.O. Box 7038 • Akron, Ohio 44306
800-321-2381 • Fax 330-773-3254
info@mussonrubber.com
www.mussonrubber.com



Introducing Wireless Connectivity with



Compliance just got easier!
Download and view your required
emergency lighting reports on your
mobile device. Learn more at
www.acuitybrands/star



[in](#) [v](#) [f](#) [t](#) 1-800-866-4682 www.iotaengineering.com

Flex-C Trac

Even Your Newest Guy Can Frame Precise Curved Walls



John is that newest guy. Using Flex-C Trac,
he is already building curved walls like a veteran.



Pick up Flex-C Trac
at Your Local Distributor
and Start Framing

**FLEX-ABILITY
CONCEPTS**
The Curved Wall People™

Toll Free 866.443.FLEX
(866.443.3539)
www.flexabilityconcepts.com
MADE IN THE USA

cant elements of the building, essential to maintaining the existing character of the building. Finishes were purposefully rough-edged to maintain the industrial feel of the building, achieved through polished concrete and plastering rather than excess use of finer finishes.

ASPIRATIONS MADE POSSIBLE

The entry features large-scale stainless-steel words selected by the Teen Task Force to inspire center patrons: VISION, GROWTH, VOICE, AMP. “AMP”, the nickname for the center, stands for “Aspirations Made Possible”, as true for the teens who enliven the space as it is for the building itself, aspirations of reuse made possible through innovative thinking and collaborative processes.

The first floor of the building features general-activity rooms, which open out to the parking lot via folding-glass walls. This flexibility enables large events to spill outside as needed and indoor-outdoor events to take place with ease, an incredible pandemic foresight by the design team.

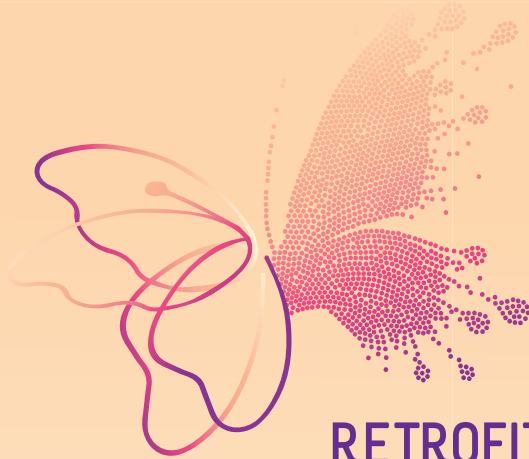
The second floor was already a vast open space, spanning wall to wall. There was nothing to remove, so the design team took advantage by keeping it open and flexible, an ever-changing space for teen groups and programs now and into the future.

The bright-green wall at the entrance of the building, a striking contrast to the usual grayscale of civic buildings, was also chosen by the Teen Task Force. The color was approved at a rousing Design Review meeting where the teens, SAT prep books in hand, spoke passionately about what the color green means to them: hope and opportunity.

The \$4.5 million, 13,500-square-foot YMCA-PG&E Teen Center is a stunning example of adaptive reuse and making sense of a non-functional building with an obsolete purpose. That so many entities were able to come together to create something not only functional, but wonderful in this space is a testament to creative thinking and collaboration—an effort to include and inspire an age group that is often overlooked.

VIEW THE 2022 WINNERS AT

www.retrofitmagazine.com/category/2022-awards



RETROFIT MAGAZINE METAMORPHOSIS AWARDS

The 2023 Metamorphosis Awards

Be recognized by **retrofit** magazine for your outstanding work retrofitting commercial, industrial, institutional and residential buildings!

Submissions now are being accepted to enter our fifth-annual Metamorphosis Awards, honoring architects, designers and contractors for excellence in renovation, retrofits and more.

CATEGORIES:

- Whole Building
- Historic
- Exterior
- Interior
- Residential
- Mixed Use
- Multifamily
- Adaptive Reuse
- Addition
- Wild Card: A creative improvement to an existing space/feature that doesn't fit in the other categories.

NEW
CATEGORY!

DEADLINE FOR ENTRIES: July 14

Learn more at www.retrofitmagazine.com/metamorphosis-awards.

CYBER SAFE

ATTACKS ON CLOUD AND DATA
INFRASTRUCTURE UNDERLINE
THE NEED FOR CYBERSECURITY

WRITTEN BY | JIM SCHNEIDER

Like most every sector of the global economy, the design and construction industry has become exponentially more digital, more connected and more cloud-based. Project managers on job sites rely heavily on their ever-present tablet devices, and massive amounts of information and data on everything from drawings to budgets and contracts are generated and shared seamlessly in a digital environment.

Technology has revolutionized the industry, streamlined processes and made the sharing of vital information so much simpler. But creating these open pathways to enable the seamless flow of data comes at a cost. For firms of all sizes and types, the threat of cyberattacks continues to grow and the need for cybersecurity is greater than ever.

"The threat landscape is constantly evolving and the need to adapt cyber defenses is something that requires attention every day," says Mike Carr, vice president, Information Technology for Clune Construction, a national general contractor, headquartered in Chicago. "Threats from bad actors have increased and threats come in daily. We routinely see standard attacks, such as spear-phishing and whale-phishing, but a lot of threats have become more complex and targeted."

"The types of threats companies face vary depending on where they are in their adoption journey," explains Aditya Thakur, director, Product Management at Autodesk Construction Solutions. "Some companies are still for the most part using manual workflows with pen and paper. Others are moving to cloud-based systems and asking how they secure their data. A few years ago, most customers were concerned with issues, like single-sign-on and wanted to make sure to add additional authentication to protect access to data. As customers become more sophisticated, they are thinking about the integrity of the data itself and maintaining it in case something was to happen."

Sharing and Securing

Although the degree of adoption and technological reliance may differ from company to company, firms of all sizes and operations need to be thinking about cybersecurity. The amount of information that goes into building design and construction, the number of interactions involved and the overall level of technology adoption in the industry makes it very important for firms in all parts of the building process to be on alert.

"Most small- to mid-sized businesses do not have a dedicated cybersecurity department. However, maintaining a solid cyber defense is something every organization should strive for," Carr says. "Companies should never assume their industry isn't a target for attacks. All organizations should have a culture of security. Trends for 2023 indicate the use of artificial intelligence/machine learning to increase the effectiveness of phishing campaigns. Protecting remote and hybrid employees and mobile-device compromises are things to focus on this year."

"The pandemic pushed a lot of companies to quickly adopt cloud-based solutions and, as a result, many of those companies are trying to figure out what their security roadmap should look like," Thakur says. "Traditionally, construction has lagged slightly in terms of technology adoption. Previously there were mostly design workflows using Revit, AutoCAD and other design-authoring tools and the process would happen on paper, email and Excel. But now there's a burst of activity in cloud services."

“
COMPANIES
SHOULD NEVER
ASSUME THEIR
INDUSTRY ISN'T A
TARGET FOR AT-
TACKS. ALL
ORGANIZATIONS
SHOULD HAVE A
CULTURE OF
SECURITY.

— Mike Carr, vice
president, Information
Technology, Clune
Construction

”

“

I'VE SEEN ATTACKS ON THE RISE IN GENERAL. YOU BREACH SOME SERVERS, YOU GET THE PROFESSIONAL EMAIL ADDRESSES AND THEN START SORT OF REPEATEDLY ATTACKING. DENIAL-OF-SERVICE ATTACKS HAVE BEEN ON THE RISE, AND THOSE ARE TARGETED ATTACKS ON CLOUD RESOURCES TO BRING THE SERVICE DOWN.

— Aditya Thakur, director, Product Management, Autodesk Construction Solutions

”

Many threats are universal, but there are factors the construction industry specifically should consider.

“Based on my experience, there are challenges that are specific to the construction industry,” Thakur notes. “All companies need to think about how they secure their data, their employees and their information, but what can be unique in construction is that you might be working with 50 different companies sometimes on a single project. There is a lot of need for data sharing back and forth. As a general contractor, for example, you might invite numerous trade partners to your cloud, but how do you secure data you want private to yourself? That’s one challenge and another is that you might be dealing with many partners in vastly different stages of technology adoption.”

Threat Environment

The nature of the threats out there aren’t necessarily new, but many tried-and-true attack techniques are becoming increasingly more sophisticated and damaging.

“Malicious parties, both individual and state sponsored, are targeting all industries with crypto, phishing and direct ransomware attacks. I’ve been seeing incidents that impact even Fortune 500 companies,” Carr explains. “A lot of threats have become more complex and targeted. They will compromise a subcontractor and directly use their email to attempt to get you to respond with a targeted email.”

Thakur adds: “I’ve seen attacks on the rise in general. You breach some servers, you get the professional email addresses and then start sort of repeatedly attacking. Denial-of-service attacks have been on the rise, and those are targeted attacks on cloud resources to bring the service down. I know the cloud companies are sort of working on it, but that’s just something to keep an eye on.”

“We’ve started seeing more instances of very targeted campaigns where they set up nearly duplicate domain names and user email accounts and then start trying to represent themselves as legitimate users,” Carr says. “At Clune, we have an external service doing regular checks and takedowns of those domains as a service to us.”

Educate and Defend


Cybersecurity is an ever-escalating struggle that forces companies to constantly keep up and defend against ever-more sophisticated threats and attacks. While security technology is part of the solution, it is not a silver bullet. Education, authentication and process are vital to any security strategy.

“It is critical for any company to increase the awareness of its staff through cybersecurity training and phish testing,” Carr says. “The end-user is the front line of defense. They need to partner with a cybersecurity industry specialist to make sure they are protected. I suggest performing professional risk/gap analysis at least once each year to mitigate possible points of vulnerability.”

“Make sure employees are constantly educated about phishing attacks. What a lot of companies don’t realize is that when a breach happens, you may not see the true impact of it until a few years later,” Thakur says. “Make sure folks are aware, because it can happen very innocently. More companies now are running fake phishing attacks internally to make sure employees are always aware.”

There is a delicate balance to be struck between security and usability. In the end, technology and data sharing are intended to make jobs and processes easier, and that simple truth can be jeopardized with overly onerous security protocol. A combination of process and technology is required.

“I think authentication is always going to be a trend because there are a lot of tools out there and the threats are always evolving,” Thakur says. “But how do you create security without making it too restrictive for users to log in? In construction, it’s very important to be usable because the project managers in the field have limited time, and they want to get in and get out and get stuff done. It puts the onus on tech companies to constantly evolve and upgrade their security infrastructure to make sure they’re doing right by their customers.”

“Security is something that should be at the forefront for all organizations,” Carr says. “Protecting their data and their clients’ data should be top of mind, not only for the IT department, but for the entire company.” 

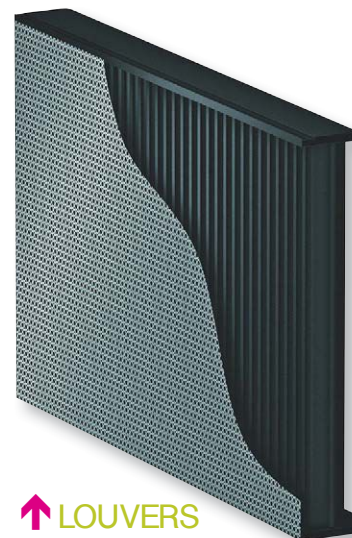


COMPACT DOOR STACKS VERTICALLY

Clopay Corp. has released its VertiStack Clear Door, a compact door with vertically stacking sections that take up minimal ceiling space, making room for mechanical, electrical or plumbing fixtures. The product, which does not have hinges or exposed tracks, is

engineered to operate smoothly and quietly. VertiStack Clear has been tested to ASTM E283 standards and meets International Energy Conservation Code requirements for air infiltration. Customizable to suit openings up to 14-feet wide and 14-feet tall, VertiStack Clear is available with glass, acrylic, or polycarbonate panels in tempered, frosted, insulated and low-E options in a variety of thicknesses, from 1/8 to 5/8 inch. Specifiers may choose from anodized finishes, including clear, black, bronze and dark bronze, as well as paint finishes in chocolate, white or bronze. VertiStack Clear is available in Clopay, Cornell and Cookson brands.

www.cornelliron.com/product/vertistack



LOUVERS CAN INTEGRATE INTO CURTAINWALL WITHOUT LOOKING LIKE LOUVERS

Construction Specialties (CS) has introduced its Perform Louvers, delivering the air movement, security and sight-screening performance of standard louvers, covered by a modern perforated aluminum skin. The Perform Louver line can integrate into any curtainwall system and is available in storm-resistant models. The perforated skin is engineered to work in harmony with interior louver blades. The fully concealed louver system has been tested in accordance with AMCA 500-L standards for air performance and water penetration. The louvers, which are available in several models, can be Kynar- and powder-coated in pearlescent, metallic or custom colors.

www.c-sgroup.com



PROVIDE SLIP-RESISTANCE EVEN IN CORROSIVE ENVIRONMENTS

Wooster Products' AlumoGrit cast aluminum nosings with abrasive grit integrally cast into the surface provide long lasting anti-slip protection. The durable nosings are suited for rough use in indoor or outdoor installations in new construction or existing structures. They are resistant to corrosive environments. AlumoGrit is available in 3-, 4- and 6-inch widths and lengths to 8 1/2 feet with cross-hatching and fluting that is well-defined. Each section is shot blasted with concealed anchors prior to shipment. AlumoGrit abrasive cast aluminum nosings provide years of slip-resistant service life.

www.woosterproducts.com



WIRELESS BLUETOOTH SWITCHES ARE BATTERY-POWERED

Universal Douglas has launched a line of battery-powered Bluetooth switches for new and retrofit applications. The wall station switches work with Universal Douglas Dialog Wireless Bluetooth equipment, do not have neutral requirements and allow for new installation opportunities featuring a modern style. Each switch station features fully flexible buttons, allowing for ON, OFF and Scene commands to be broadcast to the wireless lighting control system when activated. The switches come in the following styles:

- 8-button Switch (ON, OFF, Scene): BT-8BTBW-B-A
- 4-Button Switch (ON, OFF, Scene): BT-4BTBW-B-A
- 4 Level Station (High, Medium, Low, OFF): BT-4LVLS-B-A
- 4 Preset/Scene Station (Scene 1-3, OFF): BT-4SCNE-B-A

The wall switches are installed with no wires in a standard 1-gang back box and fit the standard Decora-style face plates. They are compatible with Universal fixtures, Douglas controls and retrofit kits.

universaldouglas.com

→ ACOUSTIC TILES ARE AVAILABLE AT REASONABLE PRICE POINT

Genesis Products' Qwel Designer Acoustic Tiles were created as an attainable option for delivering architecturally distinctive, acoustically aware environments. Available in six designer styles, featuring edges, drops and curves, Qwel tiles can be mixed and matched to achieve unique designs. Flat tiles are easy to cut and shape while molded tiles add 3D visuals. Colors include Black, White, Charcoal and Light Gray; custom colors, as well as custom shapes and sizes, can be ordered. The products reduce unwanted noise by at least .75 NRC, meaning 75 percent of sound in the space is absorbed while the other 25 percent is reflected. Qwel tiles feature 100 percent non-woven PET fibers and up to 50 percent recycled materials and are 100 percent recyclable. Compatible with existing grid systems, the washable tiles are dust and shakeout-free; stain-, mold- and mildew-resistant; and feature a Class A rating for fire and smoke.

www.qweltilles.com



← EXPOSED FASTENER PANEL LOOKS LIKE STANDING SEAM

Modern-Rib from McElroy Metal combines the economics of an exposed fastener panel along with major ribs that simulate the aesthetics of standing-seam panels. Modern-Rib adds sophisticated styling to residential roofs and post-frame structures with a 3/4-inch rib. Modern-Rib is available in Silicone Modified Polyester and PVDF/Kynar 500 coatings. The 36-inch striated panel comes standard in 29-gauge Galvalume but is also available in 26-gauge Galvalume and 29-gauge G-90 bare and G-100 painted in lengths up to 48 feet.

www.mcelroymetal.com

→ CONTROL FLOW WITH RELIABILITY AND PRESSURE INDEPENDENCE

Belimo Americas has released its 1/2- to 2-inch Electronic Pressure Independent Valve (EPIV) assemblies, which use an integrated electronic flow meter with a robust control algorithm. The EPIV integrated control signal maintains a flow setpoint, regardless of system pressure variations, with its robust algorithm modulating the valve based on its measured true flow. It compensates for pressure variations and performs dynamic balancing to maintain system performance at varying loads. Valves are selected based on coil flow rate; no valve authority and Cv calculations are needed. Assemblies are available with non-spring return or electronic fail-safe functionality. All assemblies can easily integrate into the BMS supported by analog, Modbus, BACnet MS/TP or Belimo MP-Bus communication.



www.belimo.com

→ COATING PROTECTS MULTIPLE TYPES OF ROOF SURFACES

Everest Systems LLC has launched a high-performance and field-applied topcoat under the Fluorostar brand name for restoring and protecting multiple types of roofing surfaces with long-lasting color. Fluorostar topcoat is suited for use on commercial, municipal, or industrial applications over spray foam; TPO; PVC; EPDM; metal; masonry; and asphaltic products, such as BUR and modified bitumen. Fluorostar has several features that lengthen the life of a roof, including its resistance to fading from UV radiation and minimal absorption of solar energy. The product resists dirt, biological growth, chalking, degradation and maintains its color for 20 years. When used in conjunction with an Everest acrylic EverCoat system, Fluorostar offers durability, abrasion-resistance and waterproofing properties. Fluorostar is formulated to meet South Coast Air Quality Management District Rule 1113 VOC limits for industrial maintenance coatings and also has been rated by the Cool Roof Rating Council with Total Solar Reflectance values between 0.88-0.77 over three years in white.

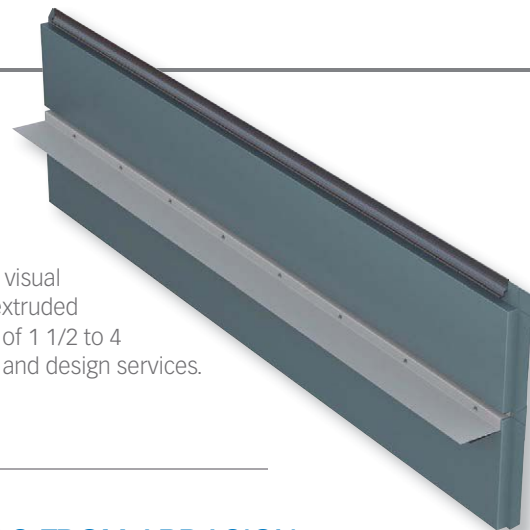
everestsystemsco.com



→ FINS ADD VISUAL INTEREST TO BUILDING FAÇADES

CENTRIA has made available Nova Fins, custom-fabricated metal accent fins for the building façade. The aluminum fins integrate seamlessly with two of CENTRIA's metal panel profiles—Formawall Dimension Series (horizontally) and Intercept Modular Metal Panels (horizontally and vertically)—enabling architects and designers to deliver unique visual elements on a wide variety of commercial construction projects. Available in folded or extruded aluminum, Nova Fins are manufactured in lengths between 4 and 15 feet and in depths of 1 1/2 to 4 inches. CENTRIA backs Nova Fins with its production process and in-house engineering and design services.

www.centria.com



← PROTECT HVAC COILS FROM ABRASION, CORROSION

AkzoNobel's POLYDURE portfolio of coil coatings contain proprietary resin technology specifically tailored to the needs of the HVAC segment, including commercial, industrial and residential applications. The coating system provides a trouble-free application combined with a consistent, smooth film. It contains forming properties and provides batch consistency, along with a broad range of color, gloss and texture options. The POLYDURE portfolio includes focus-formulated primers as part of the coating system, allowing the topcoat to perform at an optimal level. The primers utilize formulation models for UV stability, corrosion resistance, delamination and intercoat adhesion. In addition, they contain Dual Action Crosslinking technology for improved performance over other options. Each HVAC project is unique, so coatings options are tailored for the rigors of every application.

www.akzonobel.com

→ DAYLIGHTING DEVICE NOW AVAILABLE IN ROUND FIXTURE

Solatube International Inc. has introduced a Round Ceiling Fixture to its SolaMaster commercial product line. The fixture features an ultra-low profile with minimal ceiling intrusion that is virtually flush. The closed ceiling design provides a new option for designers and architects to incorporate Solatube daylighting in hard ceiling applications, as well as T-Bar applications. The fixture is available for new construction or retrofit projects and can be utilized in conjunction with all SolaMaster accessories, including the integrated LED Light-Kit and commercial Daylight Dimmer. The fixture also is available with Solatube OptiView Shaping Diffusers next-generation lens technology, as well as Prismatic diffuser options. This allows an architect and/or designer to modify the lens patterns to achieve unique differing light distribution spreads for different visual effects while maintaining a consistent, visually optimized look across the ceiling plane.

www.solatube.com



→ RIBBON OF LIGHT CAN BE CONFIGURED IN MULTIPLE PATTERNS

Beta-Calco Inc. has released ENDLESS, a fluent ribbon of light that moves and grooves in all directions. With a small set of modules, create a non-stop lighting plan that integrates with the spatial design. Build countless schemas made of flowy and sinuous branches or geometric and grid-like patterns. The smooth bends of the hubs bring levity to large-scale configurations, making spaces more inviting. ENDLESS adds dimensionality to spaces and harmonizes the architectural elements from ceiling to floor. The fixture's body is extruded and die-cast aluminum that has been powder-coated. The light can be suspended for direct and/or indirect lighting.

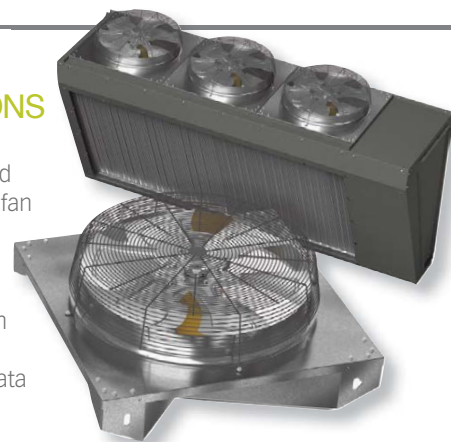
betacalco.com



→ CONDENSER FAN IS SUITED FOR MISSION-CRITICAL APPLICATIONS

Greenheck's AER direct drive configurable condenser fan can help regulate temperature and provide proper ventilation for equipment, even in the most demanding applications where elevated water and temperature protection is required. Available in four sizes, ranging from 20 to 36, the AER condenser fan offers performance up to 29,800 cfm and external static pressure up to 2.80 in. wg. AER features galvanized steel construction and can be specified in multiple mounting configurations with fabricated-steel or cast-aluminum propellers. Motor options include alternating current or electronically commutated motors that can be specified with up to IP55 and 60c severe-duty motor protection ratings. AMCA certified for Sound and Air Performance and UL/cUL 705 listed, the AER condenser fan is suited for clean-air applications, including tempered air systems, dedicated outdoor air systems, data centers, data mining and other mission-critical applications.

www.greenheck.com/products/air-movement/fans/condenser-fans



↑ WASH AND REUSE BARRIER MATERIAL

ZipWall has introduced the ZipSheet barrier, a ready-to-use, washable and reusable barrier material that is an environmentally friendly alternative to plastic sheeting. Sheets are available in different sizes and quickly zip together to form a barrier as wide as needed. Suited for residential and commercial applications, ZipWall sheets are ready-to-use out of the box with no cutting or measuring required. Sheets are available in two heights to fit ceilings up to 9 and 12 feet. A 10-foot-wide sheet with a built-in zipper door creates an instant barrier and can be extended as needed by zipping together additional sheets in increments of 5 or 10 feet. The door can be rolled up and held open with included clamps. Quick to set-up using ZipWall poles, the white ZipSheet material is a durable lightweight fabric that provides privacy and minimizes disruption on both sides of the barrier.

www.zipwall.com/product/zipsheet-reusable-barrier

↘ SUPPLY SOAP TO UP TO THREE DISPENSERS AT ONCE

Simplify soap refills with Bradley Corp.'s Top Fill Multi-feed Soap System, which is available with all WashBar handwashing models. The top-fill soap system features a large capacity 1.3-gallon tank that can supply soap to up to three WashBars at once. Suited for medium- to high-traffic commercial applications with multiple handwashing stations, the top-fill hub allows staff to refill multiple soap reservoirs at one time. The system accommodates foam or liquid universal soap. A smart sense system with LED indicator on the fill port illuminates to indicate when the tank begins to run low on soap or battery power. Smart sensors also provide audible and visual indicators to prevent overfilling and mess. The top-fill hub is made of durable chrome-plated brass to withstand heavy use in busy restroom environments. Its tamper-resistant screw heads off vandalism attempts. Existing WashBar installations can be converted to the new system with a turn-key WashBar Top Fill Multi-feed Soap Retrofit Kit.



www.bradleycorp.com/top-fill-multi-feed-soap-system



← OVERSIZED DOOR PANELS MAKE CONNECTIONS TO THE OUTDOORS

LaCantina Doors has launched the V2 Folding Door, which provides a clean, minimalist look with concealed hinges and handles. Its 2 1/8-inch ultra-thin stile and oversized panels up to 4-feet wide and 12-feet tall maximize glass and views. The door's multi-point locking system automatically engages when closing the door, allowing for one-handed operation. V2 is available with an aluminum exterior and choice of aluminum or real wood interior, as well as coordinating hardware finishes in black, bronze or stainless steel. Thermally controlled profiles deliver performance for year-round comfort and protection from the elements.

www.lacantinadoors.com

AD INDEX

***SHARING IS CARING**

Share this issue with a colleague and encourage him/her to subscribe for **FREE** at www.retrofitmagazine.com/subscribe.

MARCH-APRIL 2023



Belimo Page 11
www.belimo.us



Bradley Corp. Page 21
www.bradleycorp.com/euro-style-partitions



Ceilume Page 9
www.ceilume.com/pro



Daikin Applied Page 2
www.daikinapplied.com

DORLEN PRODUCTS INC.

Dorlen Products Inc. Page 20
www.waternalert.com



Flex-Ability Concepts Page 56
www.flexabilityconcepts.com
(866) 443-3539



GSSI Page 47
www.gssisealants.com



Hanover Architectural Products Page 10
www.hanoverpavers.com



IMETCO Page 40
www.imetco.com



IOTA Page 56
www.iotaengineering.com
(800) 866-4682



Kalwall Page 41
www.kalwall.com



Kinetics Noise Control Page 15
www.kineticsnoise.com



Kingspan Insulated Panels Page 4
www.kingspanpanels.us



MODERNFOLD Page 67
www.modernfold.com



Modular Arts Page 14
www.modulararts.com



Musson Rubber Page 55
www.mussonrubber.com



NanaWall Page 68
www.nanawall.com



Navien Page 5
www.navieninc.com



NSG Pilkington North America Page 13
www.pilkington.com/en/us



Petersen Page 6
www.pac-clad.com
(800) 323-1960



Prosoco Page 3
www.prosoco.com



Schweiss Page 20
www.bifold.com



Vitro Architectural Glass Page 49
www.VacuMaxVig.com

WOOSTER PRODUCTS

Wooster Products Page 29
www.woosterproducts.com
(800) 321-4936



ZIPWALL Page 28
www.zipwall.com

SACRED SALUTE

A Redesigned Monument Honors Veterans




The city of Dubuque, Iowa, recently unveiled its renovated Veterans Memorial Plaza. Designed by RDG Planning & Design, the memorial seeks to honor veterans by unifying and enhancing existing memorials. Located on Chaplain Schmitt Island, the memorial was first dedicated in 2009 and championed by Dubuque resident Louis Kartman, a former U.S. Marine.

RDG's design for the \$3.2 million renovation created a new memorial mall unified through the golden mean, a decorative concrete path that transforms into an elevated boardwalk and extends from the Veterans Memorial Plaza over the pond. As part of the renovation, existing components, including donor pavers, memorials and the original helicopter installation, were temporarily removed and preserved and then reinstalled in the final design.

A key element of the project includes Skyward, a spiraling sculpture designed and fabricated by the Art Studio at RDG. The 24-foot public art installation honors the late Chaplain Aloysius Schmitt, who died at Pearl Harbor while helping crew members escape the USS Oklahoma as it took on water. Visitors can experience Skyward while reading Edward Thomas' poem "Rain," which is etched on the inside and serves as a reminder of the fragility of life, the price of war and the many sacrifices of veterans. In addition, colorful lighting illuminates the piece at night, adding prominence to the memorial.

"Creating this art piece has been a truly humbling experience," says RDG Partner Doug Adamson, PLA, ASLA. "Throughout the process, we had the privilege of meeting with local veterans' groups, listening to their stories

and experiences, and gaining a deep understanding that helped ensure the sculpture was what it should be—a meaningful, contemplative space of solace and respect. We feel grateful for the chance to work with service members, as well as the city of Dubuque and our project partners to add to the experience of this tremendous memorial."

RDG developed a placemaking and implementation plan designed to improve the overall riverfront on the island, enhance the overall experience, increase foot traffic, and create a sense of place that celebrates the values of the community and honors veterans of the U.S. Armed Services. 

A photograph of a modern office interior featuring glass partitions. The partitions are made of clear glass with horizontal frosted bands. They separate different work areas, including a meeting room with a table and chairs, and a lounge area with a sofa. The floor is made of dark wood planks. The ceiling has recessed lighting. The overall aesthetic is clean, professional, and modern.

THE ULTIMATE IN SPACE FLEXIBILITY



MODERNFOLD[®]
Acoustics • Aesthetics • Performance

GENERATION 4

Folding Glass Walls by NanaWall



Helping you push
your boundaries
meant reinventing
our own.

Explore Generation 4 Folding Glass Walls
at nanawall.com/generation4



Increased Transparency: Clean aesthetics with the slimmest profiles available and minimal exposed hardware.

Flexible Stacking: Floating panel sets can stack to the left or right with panels inward or outward opening.

Uninterrupted Transitions: Only ADA-compliant sill with a water rating and a high heel resistant feature.

Proven Durability: Air, water, structural, and forced entry tested. Swing door tested to 500,000 and bi-fold panels to 20,000 open/close cycles.

Available in
three different
material choices:



ALUMINUM



CLAD



WOOD

NanaWall.com
800 873 5673

NanaWall®
Boundaries **Unbound®**